DOCUMENT RESUME

ED 134 674 CE 008 355

AUTHOR de Clerck, Marcel
TITLE The Operational Seminar: A Pioneering Method of Training for Development. Educational Studies and Documents No. 20.
INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Paris (France).
PUB DATE 76
NOTE 60p.
AVAILABLE FROM UNIPUB, Inc., P.O. Box 443, New York, New York 10016 ($2.65)

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Adult Education; *Educational Development; *Field Experience Programs; Foreign Countries; *Illiteracy; Illiterate Adults; International Education; *Professional Training; Program Descriptions; *Program Development; *Seminars; Training Techniques

ABSTRACT

This descriptive study is mainly intended for adult educators, teachers, engineers and technicians in industry and agriculture in charge of illiterate workers, international and national specialists responsible for the launching and running of literacy programs, and more generally for all who take an interest in the work which is being done to link education to development. The focus is on operational seminars (the principles and methodology of which were worked out and applied through the efforts of UNESCO), which have in recent years become an important means for training personnel for national literacy programs. The conceptual basis, organization, content, and results of certain of the operational seminars held so far are presented in four chapters: I. Introduction to the Operational Seminar on Literacy Work, II. Development of the Background to the Operational Seminar, III. Phase One of the Educational Study of the Milieu, and IV. Phase Two of the Educational Process: The Education and Training Program. A separate section, Conclusions and Future Prospects, and two appendixes (Some Practical Hints on Organizing an Operational Seminar and Specimen Program of Activities of an Operational Seminar on Functional Literacy Training Linked with Rural Development) are included. (WL)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED134674

No. 20

The operational seminar : a pioneering method of training for development

by Marcel de Clerck

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CE 008 355

Unesco

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL BY MICRO FICHE ONLY HAS BEEN GRANTED BY
UNESCO
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

ISBN 92-3-101323-8

French edition 92-3-201323-1
Spanish edition 92-3-301323-5

Published by the Unesco Press
7, Place de Fontenoy, 75700 Paris (France)

Printed in the workshop of Unesco
© Unesco 1976 [B]
Printed in France

EDUCATIONAL STUDIES AND DOCUMENTS
New series

Published in English, French and - for titles marked with an asterisk - in Spanish.

List of titles published or in preparation :

1. Education in the Arab region viewed from the 1970 Marrakesh Conference
2. Agriculture and general education
3. Teachers and educational policy
4. *Comparative study of secondary school building costs
5. Literacy for working : functional literacy in rural Tanzania
6. *Rights and responsibilities of youth (also available in Russian)
7. Growth and change : perspectives of education in Asia
8. Sports facilities for schools in developing countries
9. Possibilities and limitations of functional literacy ; the Iranian experiment
10. Functional literacy in Mali : training for development
11. *Anthropology and language science in educational development
12. Towards a conceptual model of life-long education
13. Curriculum planning and some current health problems
14. ALSED Directory of specialists and research institutions
15. *MOBRAL - The Brazilian Adult Literacy Experiment
16. *School furniture development: an evaluation
17. *An experience-centered curriculum: exercises in perception, communication and action
18. *Nutrition education curricula: relevance, design and the problem of change
19. World survey of pre-school education
20. The operational seminar: a pioneering method of training for development
21. The aspirations of young migrant workers in Western Europe

In the field of education, Unesco also publishes the following periodicals:

Prospects. Quarterly Review of Education
Adult Education. Information Notes
Educational Documentation and Information: Bulletin of the IBE

Preface

Since the World Congress of Ministers of Education on the Eradication of Illiteracy, held in Teheran in September 1965, a number of Unesco Member States have been making determined efforts to reduce the scale of illiteracy and to make literacy and post-literacy work an essential element of development and social change.

With financial assistance from the United Nations Development Programme (UNDP) and with Unesco's technical co-operation, some twenty Member States have participated in the Experimental World Literacy Programme (EWLP), trying out new literacy concepts and techniques, particularly in the field of functional literacy.

This Programme required a considerable effort with regard to the training of personnel since literacy activities, seen from this new angle, required a large number of instructors, who have had to adopt an approach somewhat different from that of the traditional teacher and to possess the skills necessary for relating the training process to the actual living conditions of the adults involved in it.

Operational seminars, the principles and methodology of which were worked out and applied through the efforts of Unesco, have in recent years become an important means for training personnel for national literacy programmes. While the techniques employed were already well known as a practical tool of the social sciences in general and of a teaching method involving participant activity in particular, the over-all conception on which operational seminars are based undoubtedly constituted a genuine educational innovation.

The fundamental principles and essential pedagogical methods of both functional literacy and operational seminars for the training of the personnel engaged in such work have been publicized by Unesco in two works of a practical and standard-setting nature, which the reader is strongly recommended to consult[1]. It seemed useful to supplement this information by a more descriptive study, designed to make widely known the conceptual basis, organization, contents and results of certain of the operational seminars held so far.

This study is mainly intended for adult educators, teachers, engineers and technicians in industry and agriculture in charge of illiterate workers, international and national specialists responsible for the launching and running of literacy programmes, and more generally for all who take an interest in the work which is being done to link education to development.

It was prepared by Marcel de Clerck, who has worked for Unesco for more than 20 years as a specialist in adult education and literacy. In this capacity he has personally taken part in the organization and running of numerous operational seminars, which adds an authentic personal touch to many parts of the study.

The views expressed in the body of the work are, however, the author's own and do not necessarily reflect those of Unesco.

---

1. See: *Practical guide to functional literacy*, Paris, Unesco, 1972; *The training of functional literacy personnel – A practical guide*, Paris, Unesco, 1973.

Contents

CHAPTER I -	INTRODUCTION TO THE OPERATIONAL SEMINAR ON LITERACY WORK	5
	What is an operational seminar ?	5
	Objectives of the operational seminar	6
	The participants	6
	Working methods	6
	Stages of an operational seminar	7
	The final report	7
	The beginnings	8
	In-service operational seminars	12
CHAPTER II -	DEVELOPMENT OF THE BACKGROUND TO THE OPERATIONAL SEMINAR	15
	The scope of the concept of development	15
	Innovation as a factor in development	16
	Education as an aspect of development	17
CHAPTER III -	PHASE ONE OF THE EDUCATIONAL STUDY OF THE MILIEU	19
	The concept of milieu	19
	The development scheme	20
	The development scheme at the implementation stage	21
	Forms of popular participation	21
	The educational infrastructure	23
	Initial contact with the community	24
	Brief general study of the milieu	24
	In-depth study of the milieu	24
	Building up a picture of the adult	26
	CREFAL's approach : "basic evaluation"	33
CHAPTER IV -	PHASE TWO OF THE EDUCATIONAL PROCESS : THE EDUCATION AND TRAINING PROGRAMME	37
	Choice of topics to be covered	37
	The target groups	37
	Building up a picture of the instructor	39
	The choice of methods	40
	The methodology of the education programme	42
	Methods used	43
	Educational materials	46
	Training of instructors	47
	Trying out the education programme	48
	An operational seminar on post-literacy work	50
CONCLUSIONS AND FUTURE PROSPECTS		53
APPENDIX I -	SOME PRACTICAL HINTS ON ORGANIZING AN OPERATIONAL SEMINAR	55
APPENDIX II -	SPECIMEN PROGRAMME OF ACTIVITIES OF AN OPERATIONAL SEMINAR ON FUNCTIONAL LITERACY TRAINING LINKED WITH RURAL DEVELOPMENT	57

Chapter 1

Introduction to the operational seminar on literacy work

WHAT IS AN OPERATIONAL SEMINAR?

The operational seminar is an innovation arising directly out of the Experimental World Literacy Programme (EWLP). It was designed as a means of disseminating the results of the Experimental Programme in the field of the methodology of development-linked literacy work. As such, it relies on the techniques of method demonstration and of demonstration by results. In other words, the purpose is not to put across formulae, procedures or concepts in the abstract, by means of lectures, *ex cathedra* courses or the study of documents, but to carry out activities in the field, in a real-life situation. The operational seminar does not set out with a pre-established definition of functional literacy. The participants themselves formulate their own definition on the basis of their own experience in the field during the seminar and discover the basic principles which guide literacy work and determine its methods in the same way. The actual problems occasioned by the participation of men and women in a development scheme determine the programmes, the content and the educational methods and procedures to be used. The reactions and attitudes of these men and women to the instructional activities prepared for their benefit provide the basis for evaluating the educational work done. By the end of the operational seminar the participants, through their involvement in a common task, will have acquired the same basic conceptions with regard to functional literacy. They will speak the same language, which can only be acquired, by sharing a common experience. Having devised and applied in practice a functional literacy programme, in contact with the living realities of the field, the participants will have gained the skills, knowledge and know-how necessary for launching and running a full-scale operation of this kind. They will have been instrumental in training themselves.

Thus the operational seminar may be defined as a method of training, beginning with the training of those responsible for planning and preparing functional literacy programmes, or better still as a method of self-training. Each participant learns by himself, "by methods combining, within the act of learning, practical activities and the theoretical elucidation of those activities" [1]. The facts prove that there is no better teacher than experience acquired in and through action, than knowledge and know-how that have been directly experienced.

Although different approaches may be adopted to meet the requirements of specific forms of action, the operational seminar may be described as a training exercise which enables the participants to experience, on a reduced time-scale but in a real situation, the sequence and correlation of operations, which, taken together, constitute the process of literacy work linked to development, whether the development be predominantly economic, social or cultural. Like research workers operating in problem situations, the participants rediscover for themselves, through an individual and group effort of research and analysis, an educational strategy geared to a development strategy and the fundamental concepts of a new type of literacy work. They acquire direct experience of ways of preparing and shaping a "made-to-measure" programme rooted in the requirements of a specific milieu, and a practical knowledge of experimenting with educational activities and assessing the various factors in the learning processes. It is thus a situational method, combining analysis and action to arrive at a formulation of educational methods and procedures and a definition of the principles underlying action. Theories and concepts are constantly held up for comparison with the practical realities of a particular environment. Consequently the operational seminar is a full-scale self-directed experiment. It is only by doing that one learns to do.

The most appropriate working method is the problem-solving approach. Each stage in the operational seminar takes the form of a problem which the participants have to solve before moving on the next stage.

---

1. Unesco, *The training of functional literacy personnel – A practical guide*, Paris, 1973, p.9.

OBJECTIVES OF THE OPERATIONAL SEMINAR

The objectives of most operational seminars to date take the form of a series of problems to be solved in the field, which may be formulated as follows :

1. What should be the place of a literacy programme in the context of a programme of development, whether chiefly economic or chiefly socio-cultural ?
2. How can a strategy be prepared for literacy work viewed as a component in a development undertaking?
3. How are the development objectives to be reflected in terms of education and training ?
4. How, on the basis of a given situation, can literacy programmes be prepared and shaped which come up to the needs and expectations of adults and to their intellectual, technical and occupational level ?
5. How are the instructors to be trained or retrained?
6. How can the various factors involved in the learning processes be identified and assessed ?

Each of these objectives has a corresponding number of skills, essential to the education programme, which must be acquired. Thus the participants have to undertake a series of research efforts leading to a rediscovery of the concept of literacy.

The objectives are related to the actual training of instructors and other persons responsible for functional literacy programmes, but the organization of an operational seminar can also fulfill more general objectives, such as :

1. demonstrating to the national authorities the value and importance of a functional literacy element within a development scheme for educating the population concerned towards a better understanding of, and more effective participation in, development programmes designed for their benefit;
2. promoting the concept of the operational seminar as a method of training for development.

Alongside these promotional activities, whose purpose is to disseminate the results of the Experimental World Literacy Programme, many operational seminars also include aspects having a bearing on applied research. The aim is not just to rediscover or repeat the achievements of the Experimental Programme, but to build on work already carried out elsewhere. The seminar held at Catalagan, Philippines (March and April 1974) was almost entirely devoted to applied research in a virtually unexplored field – that of post-literacy follow-up work. Its objectives included an attempt to answer the following question : What educational activities can help to create a "literate" milieu ?

THE PARTICIPANTS

As a method of training for development, the operational seminar is in fact intended for all cadres and instructors involved in the processes of innovation necessitated by any development effort. It implies the participation of those responsible for the content of development programmes – those who determine what has to be done in order to attain the objectives of development – and also of those responsible for introducing among the populations concerned the innovations contained in these programmes, whether they are technical or are concerned with changing the behaviour of individuals. Depending on the type of development undertaking which forms the background to the activities of the seminar, such persons will include agricultural technicians (agronomists, agricultural extension workers), health technicians (doctors, health educators), adult educators (specialists in programme design, production of teaching materials, training, evaluation, citizen organization, instruction, supervision, etc.), and social scientists (sociologists, social psychologistes, economists, psychologistes), etc.

WORKING METHODS

From the first day, the participants in an operational seminar are divided into multidisciplinary teams. Each team includes educators, development technicians and social scientists. A "zone of activity", generally a community, is assigned to each team to operate in; in this way, it comes face to face, in the field, with real-life problems. In contrast to the conventional type of seminar, where information is exchanged on an environment or situations which are very frequently unfamiliar to the majority of participants, the operational seminar produces an exchange of knowledge concerning a practical and immediate problem in an environment and situation familiar to all the participants. The problem has to be solved. How ? Knowledge alone is not enough. The exchange of views will also cover know-how, practical ways of actually solving the problem common to all the participants. It is in this respect the multidisciplinary approach proves particularly rewarding. In this way, by actually taking part, development educators and technicians find out how social scientists prepare the instruments for an investigation of the milieu and diagnose a problem situation. In this way, too, social scientists and development technicians co-operate in preparing programmes and teaching materials and take part in testing and evaluating them, whilst educators and social scientists learn from technicians the strategy and procedures of a development operation as well as the obstacles to such action which may arise among the population. Engaged in a common endeavour, educators, development technicians and social scientists work together, applying their respective skills to achieve a common aim.

Each team is responsible for settling matters of internal organizations. It is free to choose its own methods and draw up a time-table. The only limitation is that imposed by the duration of the seminar. By the closing date, each team must have completed all the phases included in the educational action process.

Some operational seminars are non-directed, others semi-directed, and yet others are deliberately subject

to direction. "Non-directivity" is an advantage when participants include highly qualified specialists. In such cases, each team draws up its own methodological approach on the basis of discussion, without the assistance of the experts assigned to the seminar. The latter are distributed among the various teams as participants, and profer them technical services in the same way as the other team members. They address the seminar only at its opening, in order to explain the techniques of the exercise and to provide general information on its functioning, and at plenary sessions, where they make a critical analysis of the work of the groups. Non-directivity also has the advantage of stimulating a spirit of initiative and creativity in both groups and individuals and of promoting a wide variety of approaches, methods and techniques. It enables the members of each group to direct their own training by methods they have devised themselves. It also creates a most constructive spirit of emulation between the various teams which very often gives rise to innovations and original contributions in the sphere of methodology. The members of one team feel impelled to take an interest in the activities of other teams, thus promoting a flow of information among all the participants.

In "semi-directed" seminars, the experts act as technical advisers. They are not team members and participate in the work of the groups only at the letter's request, to clarify specific issues or to provide technical information and suggestions. Their rôle consists in guiding and supervising the progress of the work programme at key points in the methodological process. A semi-directed seminar requires very frequent working sessions attended by all the teams. The expert advisers sum up the activities of the groups and supply the participants with the information or clarifications requested.

In directed operational seminars, the expert guide the sequence of operations step by step, proposing particular methods or technical procedures. The participants are often reduced to the rôle of executants, painstakingly carrying out the instructions of the experts. Directivity inevitably leads to uniformity in the approaches adopted by the teams. A direct operational seminar runs the risk of degenerating very rapidly into a seminar of experts rather than a seminar of participants.

STAGES OF AN OPERATIONAL SEMINAR

An operational seminar comprises a series of stages linked one with the other and covering the whole of an educational process. Each of the stages, which are listed below, constitutes a training theme;

a. analysis of the development programme of which the educational operation forms part, and identification of problem situations constituting obstacles to its satisfactory implementation;

b. "sounding" of the local milieu;

c. study of the characteristics of the participating adults;

d. translation of identified local problems and needs into educational objectives, and definition of the content and methods of the educational activities;

e. study of the characteristics of the instructors;

f. preparation of the educational programme and production of teaching materials;

g. guidance for the instructors;

h. testing and evaluation of the educational activities.

Experience has shown that a minimum of three week's work is required to cover all the stages of the educational process, to enable each team to experience them out in the field and to study the themes involved in detail with the concentration required. Efforts have certainly been made to reduce the length of operational seminars : that held in Tillabéri, in Niger, only lasted for ten working days, as it was intended for cadres who, on account of the demands of their work, could not be absent for longer, but the participants considered that the seminar had been too short to allow them to examine all the problems they wished to solve as thoroughly as they would have whished to do.

The reader will find in annex II as an illustration, an example of the programme of work of an operational seminar lasting for three weeks. Most of the operational seminars held up to the present, with a few exceptions, have followed this pattern. It should, however, be stressed that a programme of work has only an indicative value: its application may vary according to the specific situations – unforeseeable at the initial stage – which each team will have to deal with.

THE FINAL REPORT

The final report of an operational seminar is not an account of what has been said during meetings, as in a seminar of the conventional type, but of the work done by each team, in the field, when up against the living realities of the environment. It is usually of a descriptive and analytical nature. It describes how each team has operated, the reasons for adopting a particular approach, the reasoning underlying the way in which the activities were carried out and the positive or negative results obtained. Each team nominates one or more rapporteurs to draft its report, which is usually submitted to the plenary meetings once a week. The final report is distributed to the participants in its definitive form at the closure of the seminar – something of great psychological importance and also quite an achievement when one considers the often difficult working conditions in the villages concerned, which are frequently isolated and lacking in the most elementary facilities. Whatever its imperfections of style and form, the final report constitutes an invaluable methodological guide. Like a methodological guide, it is drafted in an impersonal, anonymous style, usually avoiding any anecdotal or personal references. The final

report in fact combines all the weekly reports of the various teams, the information documents submitted to the seminar as well as the usual annexes such as the programme of activities, the list of participants, etc. The final report is usually a fairly bulky document of 200 to 300 typewritten pages.

A certain number of reports also contain a summary of the activities of the operational seminar. This is usually a document which, while summarizing the work carried out by the various teams of participants, stresses the differences in the educational approaches, methods and procedures adopted by each team, differences which result from the non-directive nature of most of these operational seminars. It constitutes in fact a comparative analysis of the activities undertaken by the teams, a critical appraisal of the various ways in which they have approached the successive stages of the educational process and of the results they have obtained. The Unesco Regional Office for Education in Asia (Bangkok) has published as a separate document this part of the final report of the operational seminar held in Indonesia in 1973 on functional literacy and family education.

THE BEGINNINGS

From the initial stages of the Experimental World Literacy Programme, divergences in the interpretation of the concept of functional literacy and in the methods of applying it became apparent among the experts assigned to the various experimental projects. Some considered that to render the programmes functional, it was enough to organize, in the context of a development project, literacy courses of the conventional type at the place of work, in the factory or in the agricultural co-operative; others thought it sufficient to substitute a technical vocabulary, frequently academic, of the older type of literacy course; still others thought it sufficient to follow up an ordinary literacy course by vocational training sessions. In some cases, it was even considered that functionality was a purely pedagogical question which only concerned the literacy specialist of the team of experts.

In fact, the concept of functional literacy was a new discovery, a distinctive new departure for which no precedent existed. The World Conference of Ministers of Education on the Eradication of Illiteracy which met in Teheran in September 1965 had indeed indicated a number of working hypotheses, the main one being that literacy training leading to vocational or technical training could, subject to certain prerequisites, become an important factor in promoting development. It was on the basis of this hypothesis that the specialists assigned to the Experimental Programme were obliged to invent approaches, work out a methodology and plot the course of an educational activity conceived in relation to fixed objectives and particular problems.

It was inevitable, and indeed to be expected, that divergent view points should have emerged among the specialists. Unfortunately, the existence of sometimes contradictory interpretations of the very concept of functional literacy within one and the same team of experts seriously hampered the preparation of the programmes of action for the experimental projects. In 1969, four years after the launching of the Experimental World Literacy Programme, Unesco noted the existence of a considerable discrepancy between the original objectives and the actual achievements. It had become urgently necessary to bring the specialists working in the field to some consensus on the interpretation and application of functional literacy. Experience had already shown that seminars of the conventional type did not provide the most appropriate means of clarifying a concept and formulating, from an analysis of the practical consequences stemming from that concept, principles for action and operational methods, it being difficult to move from the realm of theory and abstract judgements to that of concrete action in the field. To overcome this difficulty, Unesco organized a special meeting of international and national functional literacy specialists from 18 May to 5 June 1970 at Aïn Kettena, Tunisie. Its work was based on the actual activities of the farming community and on the development problems of three prototype co-operative undertakings "pré-coopératives" in the region. The participants, divided into three multi-disciplinary groups comprising educators, social scientitsts and agricultural co-operation and development technicians, worked in the field the whole time and studied its problems and needs. Educational programmes and material were prepared to suit these problems and needs, and were tried out in literacy classes. Throughout the session, the groups worked on a non-directive basis, each one organizing its own training along the lines it had chosen.

The operational seminar was born.

In September of the same year, the Regional Centre for Functional Literacy in the Rural Areas of Latin America (CREFAL) organized its first operational seminar, with the assistance of staff members from Unesco Headquarters, in the framework of its usual course. The 126 participants in the seminar including trainees from 21 Latin American countries, were divided into four teams. Two teams worked in Indian communities living on the shores of Lake Patzcuaro, near CREFAL, in the framework of a development project known as the Lerma Plan, while the two other teams worked in the region of the hot lands, 150 km south of Patzcouaro, in rural communities which had enjoyed the benefits of the agrarian reform undertaken under the presidency of General Cardenas. The four volumes of the final report were handed to the participants on the closing day of the operational seminar.

In January 1971, the Regional Centre for Functional Literacy in Rural Areas for the Arab States (ASFEC) organized, at the invitation of the Governement of Sudan, an operational seminar at Wad Medani, 200 km south of Khartoum. This seminar was held in the framework of one of the most ambitious agricultural development projects in this part of the world, the Gezira

Scheme, in the province of the Blue Nile. Apart from the ASFEC experts and staff members from Unesco Headquarters, specialists from Egypt, Iraq, Jordan, the Libyan Arab Republic and Democratic Yemen as well as staff members of the League of Arab States and the Food and Agricultural Organization (FAO) took part in this methodological exercise.

The work of the operational seminar was set down in two voluminous reports of approximately 600 pages each, one in Arabic and the other in English; both were handed to the participants on the closing day of the seminar. The immediate result of the latter was a decision on the part of the authorities responsible for the Gezira Scheme to carry on the work begun by the seminar by its own means and gradually to extend its sphere of action to the whole territory covered by the Scheme.

The CREFAL and ASFEC seminars made a valuable contribution to the elaboration of the training methods employed by the two regional centres and their regular courses were totally recast. Since then, the training programmes – brought down in duration from six to three months – comprise three parts : an introduction to the theory and methodology of functional literacy; an operational seminar, which is the real hub of the training system, allowing theory and practice to be combined in field experience; and a period for closer scouting and synthesis.

Finally, operational seminars have enabled CREFAL and ASFEC to undertake a genuine regionalization of their activities which had formerly been confined to the immediate neighborhood of the centres. Thanks to operational seminars, the two centres were in a position to organize seminars in the countries of each region in the very places where the need for functional literacy action was actually felt, i.e. in the framework of development projects.

The list of the operational seminars organized either by CREFAL following its reorganization or by various Latin American countries with the assistance of CREFAL appears below :

	Country	*Place*	*Date*	*Contex*
1.	Costa Rica	Turrialba	March 1971	agricultural co-operatives
2.	Mexico	Celaya (Guanajuato)	May 1971	agricultural development
3.	Venezuela	Acarigua (Portuguesa)	June 1971	agricultural development
4.	Mexico	Lombardía (Michoacán)	June 1971	agricultural development
5.	Colombia	Barranquilla	August 1971	agricultural development
6.	Colombia	Sevilla (Magdalena)	August 1971	agricultural development
7.	Mexico	Puebla	October 1971	agricultural development
8.	Mexico	Apatzingán (Michoacán)	October 1971	agricultural development
9.	Colombia	San Gil (Santander)	Oct-Nov. 1971	agrarian reform (INCORA)
10.	Paraguay	Caeguazú	Nov-Dec. 1971	rural settlement (DAYEA)
11.	Panama	Veraguas	January 1972	development of indan communities
12.	Guatemala	Sololá	February-March 1972	co-operatives (basic evaluation)
13.	Guatemala	Sololá	March 1972	co-operatives (programming of educational action)
14.	Mexico	San Cristóbal de las Casas (Chiapas)	April-May 1972	integrated rural development in ten indian communities
15.	Ecuador	Lacatunga	June 1972	rural development
16.	Argentina	Santiago del Estero	July 1972	rural development (Rio Dulce co-operative project)

	Country	Place	Date	Context
17.	Nicaragua	Mesalepe	July 1972	rural development (PRODESAR)
18.	Peru	Trujillo	August-September 1972	agrarian reform
19.	Honduras	El Progreso	March 1973	agricultural co-operatives
20.	Colombia	Popayán	June 1973	rural development
21	Mexico	Celaya	July 1973	agricultural development
22.	Chile	Iquique	August 1973	rural development
23.	Brazil	Paintins	August-September 1973	rural development and urban industry
24.	El Salvador	Zapolitán	November-December 1973	activities concerning population problems
25.	Mexico	Mezquital Valley	April 1974	rural development
26.	Ecuador	San Pablo del Lago	May 1974	rural development
27.	Mexico	Morelia-Querendaro	October 1974	adult education programmes

The first national operational seminar which was held in Haiti from August to October 1974 at Laborde in the municipality of Cayes, where a systematic agricultural development programme is being carried out, should be added to this impressive list of operational seminars organized in Latin America. This national seminar enjoyed the benefit of direct assistance from the Unesco Secretariat.

The list of seminars organized by ASFEC or with its assistance in the Arab States is as follows :

	Country	Place	Date	Context
1.	Sudan	Wad-Medani	January 1971	agricultural development (Gezira)
2.	Egypt	Abis	April-June 1971	rural settlement
3.	Egypt	Mehalla El-Kobra	March-April 1971	industrial undertaking
4.	Egypt	Shebin El Kom	March-April 1971	industrial undertaking
5.	Egypt	Nawag	March-April 1971	agricultural development
6.	Egypt	Sirs-el-Layyan	March-April 1971	women's educational programme
7.	Tunisia	Nabeul	September 1971	activities concerning population problems
8.	Lybian Arab Rep.	Tripoli	November-December 1973	urbanization programmes
9.	Egypt	Alexandria	May 1973	integrated development
10.	Jordan	Amman	July-August 1973	industrial undertakings
11.	Sudan	Shandi	December 1973	community development
12.	Egypt	Menoufia	March 1972	rural development

	Country	Place	Date	Context
13.	Democratic Yemen	First and second provinces	April 1974	economic and social development programmes
14.	Yemen	Sanaa	July 1974	social development
15.	Oman	Al-Ramis	December 1974	agricultural development
16.	Iraq	Abu-Ghoraib	November-December 1973	agricultural development

The aim of the first regional seminar was to acquaint the cadres responsible for development with this new approach involving popular participation. To start with, promotional action was undertaken to demonstrate the rôle of functional literacy and the methodological approach it required but, soon, operational seminars were organized to facilitate the lauching of actual functional literacy programmes.

Another development, this time concerning the subject matter of operational seminars, should also be noted. Such seminars had originally been conceived as an instrument for the dissemination of methods elaborated under the Experimental World Literacy Programme. It was therefore natural that the first seminars had considered functional literacy almost exclusively as a component part of an economic development activity, in all cases where the development of the productive force – human resources – constituted an essential factor of the development process. This explains why stress had been laid on literacy courses leading to vocational training. The mastering of reading, writing and arithmetic were linked with productive work and with the acquisition of technical and occupational skills in both the agricultural and the industrial sectors. The experience gained in the Experimental World Literacy Programme had indeed clearly shown that when functional literacy activities were approached from the angle of vocational training, it very soon became necessary to take into account the social and cultural factors which favoured such training or on the contrary hampered it. The second operational seminar held at Nabeul in Tunisia, in 1972 under the aegis of ASFEC was focused on a social problem, that of population.

A century and a half after Malthus, the world had once again become aware of the gravity of demographic problems and of their fearful repercussions. By their very nature, demographic programmes are adult education programmes, for they must result in a real new awareness of the dynamics of population in order to bring about an understanding of the magnitude of the burdens imposed by overpopulations. This also involves a reorientation of the cultural values and standards of individuals regarding their offspring, which means that it is mainly a matter of education.

The adjective "functional" as applied to literacy work in this case does not carry an economic but a social and cultural connotation. The second operational seminar in Tunisia was held precisely at the time when the national authorities were considering what type of education was required by the national family planning programme both to increase its credibility among the population, particularly the rural population, and to ensure the social acceptability of the methods which such a programme required. That was a new theme and, for the participants in the seminar, largely unexplored territory. This exercise, which was aimed at integrating literacy and family planning, was the first of a series of operational seminars held under the aegis of Unesco and financed by the United Nations Fund for Population Activities (UNFPA) in Indonesia (1972), El Salvador (1973) and in the Philippines (1974). The foundation World Education also organized activities of a similar type. In particular, the operational seminar held in November 1974 in Ecuador on the methodology and the preparation of educational material for health and family planning programmes.

In Africa south of the Sahara, the operational seminar was first used as a training instrument in the framework of a project forming part of the Experimental World Literacy Programme, that of Guinea. Beginning in 1971, the authorities of that country organized operational seminars on a systematic basis to familiarize regional rural development officers and officials of the Secretariat of State for Ideology, Distance Teaching and Literacy with the methodology of what was known as *surformation-alphabétisation*.

In 1972, the Governement of Niger organized an initial operational seminar for the staff responsible for a three-year project financed by a Swiss foundation (FOPOTEC), to teach 15,000 rice-growers of the Tillabéri region to read and write while at the same time providing them with a grounding in modern agricultural methods.

In 1973, the Republic of Togo decided to provide further training for the staff of the Directorate of Social Affairs responsible for literacy. The operational seminar was held at Tové in the Klouto district in close co-operation with the local planning and development corporation (Société régionale d'aménagement et de développement – SORAD) and with officials from the health services. This seminar was also attended by national literacy specialists from eight African countries in their capacity as holders of Unesco scholarships, as well as the representatives of eight non-governmental organizations.

In August-September 1974, the Government of the Central African Republic organized at Sibut, the administrative centre of the Kémo préfecture, the country's main cotton-producing area, an operational seminar aimed at initiating the officials responsible for the development of rural areas in the methodology of functional literacy. This seminar was organized by the Ministry of National Education and Educational Reform, with the co-operation of the Ministries of Agriculture, Health and Social Affairs.

The first operational seminar in the People's Republic of the Congo was held at Kinkala, 80 km from Brazzaville in the Pool region where a rural development programme was being carried out with the assistance of the International Labour Organisation (ILO),in December 1974. Its objective was the pre-service or in-service training of national staff for literacy programmes. Eleven members of the MPLA (People's Movement for the Liberation of Angola) took part in the seminar.

It was the Lao People's Democratic Republic (then Laos) which inaugurated the series of operational seminars conducted in Asia, the first being held from 17 February to 4 March 1974, in the framework of the development plan for the agricultural, forestry and pastoral sector of the Vientiane Plain, an undertaking forming part of the project for the development of the lower Mekong basin, a gigantic operation launched under the aegis of the United Nations. The seminar was aimed at training the staff (instructors, and supervisors) who were to be responsible for the functional literacy programme in the Vientiane Plain.

Again in connexion with the development of the lower Mekong basin but in Thailand this time, at the site of the Nong-Way irrigation project, an operational seminar was held at Khon Kaen in October 1973, at the initiative of Unesco, for the adult education and agricultural development specialists of seven countries of South-East Asia, and more particularly of the four countries bordering the Mekong concerned by the activities of the Mekong Committee. The latter in fact actively participated in the work of the seminar by sending one of its leading technical specialists to it. The close co-operation of FAO, ILO and SEAMES (Southeast Asian Ministers of Education Secretariat) should also be mentioned. The national operational seminar organized by the Government of Pakistan at Lalumusa in the Punjab in January 1974 constituted a first step towards the implementation of a vast mass literacy programme. The Government set itself the objective of establishing 270,000 literacy centres in schools, on farms, in community centres (Union Council Halls), industrial undertakings etc., before 1980, with a view to making 11 million new literates The operational seminar at Lalamusa, which was attended by specialists from all parts of the country, was aimed at training instructors, as the first stage in the literacy programme before the launching of pilot projects in all the provinces.

In February-March 1973 an operational seminar was held in Indonesia at Lambang near Bandung in western Java, under the auspices of Unesco and of the United Nations Fund for Population Activities (UNFPA). Its objective was to work out the basic elements of an educational programme on population problems as part of the literacy programme. With over 120 million inhabitants, Indonesia, the country with the world's fifth highest population saw demographic growth cancelling out its development planning efforts and jeopardizing its population's chances of attaining a higher standard of living. Indonesia believes that education on population problems should not be confined to birth control. Over and above family planning as such, there is a deep concern for family well-being, health, education – a very high percentage of school-age children cannot go to school – the standard of living and the quality of life. But in Indonesia as elsewhere the main problem is to bring the population to accept the idea of the small family as the norm and to facilitate the adoption of that norm. A total number of 49 adult education, family education and family planning specialists from seven Asian countries took part in this seminar with which the foundation World Education was associated.

The operational seminar which was held in March-April 1974 in the Philippines, in the Batangas province, again under the auspices of Unesco and UNFPA, was also devoted to education on population problems, but, as opposed to the Indonesian seminar which preceded it and which was mainly concerned with educational activities at the literacy level, the Philippines seminar dealt with the post-literacy level. It should be stressed it was the first exercise of its type. The participants, who were working in the field, were required to define a literate environment in operational terms and to devise and prepare educational material intended to remedy the deficiencies and shortcomings of the now well-established post-literacy activities as practised almost everywhere in the world. Nearly 60 specialists from Afghanistan, India, Malaysia, Nepal, Pakistan, the Philippines, Thailand and the Republic of South Viet-Nam participated in this seminar which was mainly an exercise in research and experimentation. The participation of the Economic and Social Commission for Asia and the Pacific (ESCAP) which had sent the head of its Population Division to attend it should also be noted.

IN-SERVICE OPERATIONAL SEMINARS

Nearly all the operational seminars mentioned above cover, over a short period, the full cycle of a functional literacy process from analysis of a given situation to evaluation of the educational activities. They may be considered as an introductory exercise in the conceptualization of the educational theory and method which a literacy activity linked with development plans requires.

As from 1971, CREFAL took the initiative of organizing operational seminars to give closer attention to certain specific aspects of the educational and training process : basic evaluation, content, analysis and preparation of actual education and training programmes. These

seminars were mainly intended for staff who had already received initial training in an ordinary operational seminar.

The first of these further training seminars was held at Lombardia in the State of Michoacan (Mexico) from 2–20 June 1971. It was focused on the basic evaluation or context study with a view to the preparation at a later date of a functional literacy programme intended for the agricultural population of the Gabriel Zamora "*ejido*." The analysis concerned a single community in an area of agrarian reform.

The second specialized operational seminar was held from 4–30 October 1971 in the same region of Michoacán, in the Apatzingan valley, but it concerned six communities. Its aims were to identify the problems and needs of the population concerning agricultural production with a view to launching a development project the following year under the responsibility of the Mexican Institute of Social Security, and to identify the basic elements of a made-to-measure educational programme.

The Ministry of Education of Guatemala organized, with the assistance of CREFAL, two specialized seminars in February-March 1972, the second constituting the logical follow up to the first. These two operational seminars, which were held at Santa-María Utatlán in the Solalá province, were intended for specialists of the Directorate of Literacy and Adult Education, for the administrative personnel and for the agronomists of the three co-operatives serving as the field of study and experimentation, as well as for the staff responsible for the educational programmes of three radio stations. The aim of the first seminar was to analyse the functioning of the agricultural co-operatives with a view to identifying the problems hampering the attainment of the objectives and which could be solved through educational action. This seminar was followed immediately by a practical exercise concerning the techniques involved in the adaptation of the programme content and in the production of teaching material.

Basic evaluation was also the theme of the specialized operational seminar held in the State of Chiapas, in Mexico, in April-May 1972. The Government of Mexico had decided to launch a vast programme of socio-economic development in an area covering 5,100 square kilometres, with a mainly Indian population. For this purpose, it called on UNICEF, FAO, WHO, the United Nations and CREFAL for assistance. This seminar, in which all the CREFAL trainees participated, lasted for six weeks from 21 April–1 June 1972. The final report, in ten volumes, constitutes a monographic study outlining the problems and the strategy for an educational programme based on problem situations directly concerning the development of the region.

Chapter II

Development of the background to the operational seminar

THE SCOPE OF THE CONCEPT OF DEVELOPMENT

By functional literacy should be understood a literacy operation or, if one prefers, an educational programme centred on development, integrated with development and regarded as a component of a development project.

Development is a complex, many-faceted phenomenon.

Under the pressure of events and needs, development has, it cannot be denied, been seen in economic terms. Economists define it using a series of indicators like rates of growth of the GNP, per capita income or per capita gross domestic product, which are all measurable and can be expressed in mathematical terms. The planners, i.e. those who design and are responsible for development programmes, also think in economic terms. They see development as the promotion of material growth and as the concentration of investments for this purpose. In the various econometric models for development which have been elaborated almost everywhere in the world, man and his level of knowledge and know-how are classified among the so-called residual factors because they are difficult to quantify.

Development is not only economic but also has a sociological dimension. Sociologists who have studied the problems of the Third World have tried to widen and correct the view of development based too exclusively on economics. They have redefined development in a social context more general in scope than in the definition provided by economics.

Sociologists see development first and foremost as social change within a community resulting from external or internal forces and following a plan or project design which is to some degree explicit. By objective analysis of the components of the situation, sociology throws light on the interaction between the factors, conditions and agents of change which accounts for the development process. The establishment of an irrigation network following the damming of a river or the setting up of an agro-business are factors of change. Sooner or later, any factor of change has repercussions on the way of the life and work of the people concerned, who react either favourably or unfavourably. The attitudes of people to irrigation, which makes its own particular demands, or to factory work with its concern for productivity and accuracy, are examples of conditions which determine change. The agents of change, for their part, are the skilled personnel and specialists who introduce change, and the local population who are supposed to accept the changes being offered them and who react either favourably or unfavourably to the suasions of the agents, who are often outsiders to their group. This is where the third aspect of development, i.e. the cultural aspect, comes in. Development implies putting a premium on certain types of conduct, certain kinds of people and certain ways of life. Experience shows, and there are abundant examples to prove, that in the beginning confusion frequently exists between the system of values of those behind the development project and the system of values of the people required to take part. Too often, the two systems have nothing in common.

The setting of an operational seminar (Thailand)

What importance does "the cultural element" have in development activity ? The importance of this element derives from the fact that it provides a scale of values, a set of criteria for group judgements about what is good and bad, what is true and false, what is important and

unimportant, what is allowed, and what is sacred and what sacrilegious. In brief, culture governs what should and should not be done. It lays down rules of conduct and motivates the actions of individuals. A man chooses his aims and hence directs his activities in accordance with his culture, and it is again its culture which shapes the aspirations of a community and the image which it has of its own needs.

Stimuli which work in one culture may have no effect in another cultural context. In some cultures, non-materialistic preoccupations are more important than concern to increase the volume of material goods. The profit motive which plays a decisive role in highly industrialized societies does not necessarily exert the same power in all countries. This explains the error sometimes committed by those in charge of development programmes who propose that a particular society should imitate the life-style of the Western nations, which they consider as the universally valid culmination of the general evolution of mankind. Every culture and consequently every society evolves in its own direction and follows its own paths.

This same cultural pluralism is found again in the ideas which people have about education. Every society has fashioned its own image of what too many specialists suppose to be a universal phenomenon. According to Western tradition, education is to be seen in a humanist perspective and places man in the very centre of the system. Its aim is the full development of the personality since, according to this tradition, man finds within himself the justifications which give a meaning to life and it is through himself that he will fulfil his true condition as a man. Social progress results from the education of the individuals who compose society. In other social and cultural contexts, particularly in the Far East and especially under the influence of the centuries-old culture of China, the process is reversed. Stress is laid on the education not of the individual but of the community. Education does not consider man, taken individually, as the starting point and goal but thinks of man as a member of a social group in the service of that group. Individual education is thus the result of educational action centred on society, working, it is true, through the intellectual advancement of individuals, but individuals in a group situation.

INNOVATION AS A FACTOR IN DEVELOPMENT

The experience of the First Development Decade has amply demonstrated that it is not enough to have capital investment, to provide infrastructures and to take legislative measures and other suitable steps. Necessary as all these conditions of course are, they are not enough to set the development process in motion if the people concerned show no interest in the programmes prepared for them and refuse to co-operate. If the individual or group is, at the same time, both the beneficiary and the ultimate objective of any development undertaking, the individual and the group are also its determining agents. On their participation depends the success or failure of activities undertaken in the field.

From whatever angle one approaches the idea of development, it is, in fact, closely linked with the idea of innovation. Between these two ideas there is a direct relationship of cause and effect, indeed there is no development unless there is innovation. Thus agricultural development, which is the principal theme of most operational seminars, depends either on the introduction into a particular region of improved seeds and higher-yielding plant varieties, or on the adoption of better tools, or the use of more rational farming practices, or again the establishment of facilities for storing, distributing and marketing agricultural produce. Nevertheless, this agricultural development will only take place if every individual involved in the undertaking takes an interest in these improved seeds, tries the better tools, accepts the more rational farming practices and adopts the new methods for marketing his crops. In the last resort, it is individual who, in the context of development activities, decides to act in accordance with his preferences and modify, where necessary, his traditional behaviour.

Within the context of development activities, innovation does not concern the material or technological aspects of a society alone. It may also relate to ideas, beliefs, intellectual abilities, manual skills and attitudes. An individual may, for example, change his attitude with regard to his health, to hygiene and diet and to the schooling of his children. The fact of having learned to read and write is also an innovation.

Innovation may also bear on social relationships. An individual may become aware of new responsibilities with regard to his neighbour, to other people, to his community, region and country and act accordingly. Innovation may concern attitudes with regard to a family planning programme, the practices which it recommends and the ideas which a couple have about the ideal number of children. Innovation may result from the establishment of institutions hitherto unfamiliar to the group, such as co-operatives or agricultural credit institutions, or again it may result from increased investment in transport, power supplies, health, water supplies and irrigation.

For those responsible for carrying out development programmes in any field, innovation appears as a specific objective or the goal to be reached as the first priority. To mention only one example, taken from the national operational seminar held in Togo in 1973, the regional planning and development corporation (SORAD) proposes first and foremost to develop food crops in the Klouto region. This involves, in particular, improving the yields of maize, a crop grown in the traditional way, by using chemical fertilizers. Another innovation concerns cotton growing. For as long as can be remembered, the farmers in the region have grown a variety of cotton called Mono, the growing of which is associated with that of yams, but its yield is low. Since 1971, SORAD has conducted a campaign for the introduction of a new variety, Allen cotton, which is more productive and has qualities,

including longer fibres, better suited to the needs of the country's textile industry. Growing the Allen variety of cotton nevertheless requires more care than growing Mono. It calls for more complex farming practices, in particular the very strict observance of a time-table for sowing the seed and applying treatments to counter diseases and insect pests.

For the farmers of the Klouto region, these two specific and concrete aims – the use of fertilizers for the maize crop and the replacement of Mono cotton by the Allen variety – are in themselves innovations. The first, the use of fertilizers, is an addition to the already traditional practice of maize growing, but the second implies the replacement of traditional practices which are now considered inadequate by those responsible for development. From the development point of view, the first innovation requires the acquisition of new knowledge and skills to be added to traditional ones. The second calls for scientific knowledge and know-how to take the place of traditional ones. Experience shows that these two kinds of innovation cannot be introduced in the same way. Each calls for an appropriate kind of training activity.

Any development programme thus entails the adoption of innovations. Social scientists who have analysed innovation processes have stressed that it implies a learning process. To innovate and to do what he was not doing previously, an individual has to learn, whether it is to select more productive varieties, use chemical fertilizers or insecticides, use agricultural credit facilities or actively participate in the running of a co-operative. Of course, he can learn on his own or with the help of a neighbour, in which case he will take a long time to learn any new technique and perhaps even, discouraged by an unforeseen difficulty, he might never learn it. This learning process can be facilitated and thus the development process can be speeded up. This is the role of education, at least of education centred on development.

EDUCATION AS AN ASPECT OF DEVELOPMENT

Functional literacy work is precisely one of the educational approaches which aims to speed up the development process. To demonstrate the usefulness, not to say the necessity of functional literacy work as part of an agricultural development programme, we shall consider what three agricultural operations, seemingly within the reach of any farmer, imply from the instructional point of view : irrigation, use of chemical fertilizers and use of insecticides. They require that the person concerned must be able to read and understand instructions for use and above all that he must be able to do sums. He must be able to work out the area of his field and seed-beds, the quantity of seed needed bearing in mind the actual area of his seed-beds, and in the case of irrigated crops, he must be able to calculate the volume of water needed to obtain a certain level, which varies according to the growth of the plants. He must be able to work out the quantity of fertilizer to be spread on his field according to a general formula using the hectare or acre as a unit, calculate the amount of insecticide to be mixed with a particular quantity of water, depending on the variable capacity of the sprayer, etc. The farmer must be able to work out areas, volumes and contents, apply the rule of three and calculate percentages. Each innovation implies a technical level. For each technical level there is a certain corresponding level of education which can be defined in advance.

They are few farmers in Africa, Asia and Latin America who have completed their primary studies. Most of the privileged few who went to their village school, went there for only three or four years. The vast mass of farmers in the Third World are illiterate or semi-literate. This low level of education is a real "counter-development" factor which, from the outset, constitutes an obstacle to any effective possibility of continuous progress in the agricultural sector. This inadequate level of education is completely incompatible with agricultural development.

Any analysis of the modernization of the agricultural sector leads to the following conclusion : the educational level of the people concerned must be raised to a technical level appropriate to the innovations which the development programme is proposing. It is not just a question of teaching them reading, writing and arithmetic, i.e. making them literate in the narrow sense of the term since, as several operational seminars have shown, these activities can also be provided for populations which are receiving some schooling. Functional literacy work also tries to be an instrument of information. It gives information about things as they are, or in other words about the sum total of knowledge and techniques available in the modern world thanks to the progress of science and technology. It is known how to increase agricultural production, to improve living conditions in the home, to combat most of the transmittable diseases, to improve drainage, etc. Functional literacy work aims to equip individuals intellectually and raise them to a standard at which knowledge becomes economically and socially usable.

Functional literacy work is nevertheless, first and foremost, an activity to educate and train. As it is a component of a development project into which it must necessarily be incorporated, its goes beyond objectives of a specifically economic and social nature. Education not only teaches about things as they are but also enables people to decide how they would prefer things to be, and to act accordingly. Education gives order and shape to conceptual thought and teaches people to reason, to judge and to transfer what they have learned to other situations where the knowledge acquired is applicable. Functional literacy work is also a training process by which the individual becomes aware of his abilities and qualities, and whose essential goal is adaptation. Training considers the trainee as a person. It develops his ability to change and helps the adaptation of standards and values which this change requires. It is a

permanent process intended for the individual with his personality, his own way of seeing the world, his ideals, aspirations, system of values and culture. Functional literacy may rightly be considered as the educational dimension of development in cases where low levels of instruction hamper technical and social progress.

Functional literacy work, as a venture in training for adaptation, involves the modification of knowledge, beliefs, behaviour, attitudes, habits and acquired skills as well as the introduction of material elements such as tools, instruments and technical processes, these factors, whether psychological, social or material, often being interdependent, since the introduction of a new technique always imples the communication of new knowledge, the acquisition of new skills, the adoption of new behaviour and the prior existence of certain social values.

Chapter III

Phase one of the educational study of the milieu

THE CONCEPT OF MILIEU

Once the opening speeches and addresses of welcome for the operational seminar are over, the teams of participants formed and organized, and the commities in which the activities are to take place drawn by lot, an immediate start is made on the first phase of the educational process, which is study of the milieu or context.

From the outset the seminar adopts an ecological approach, so called because it refers to the relations between man and his environment. This approach, already adopted for basic education in the 1950s (then teamed mesological), was taken over in the pilot literacy projects coming under the Experimental World Literacy Programme.

How effective a functional education operation is depends very much on how closely it is geared to the objectives and problems of the development of the socio-economic or socio-cultural context in which it is to take place. The aims of this ecological approach are to obtain knowledge of a changing milieu and an understanding of the main factors of change, to identify the problems or shortcomings affecting the activity which is to bring about the change, and to work out answers to these problems, which will need to be translated into educational programmes and content. Such an operation constitutes a critical examination of the realities of a given situation and helps in formulating a diagnosis and treatment. The ecological approach enables educational action to be adapted to the objectives and specific conditions of a development project and results in a functional diversification of programmes of education in response to precise needs.

The first point for classification in the context of an operational seminar is the very concept of milieu. Writers on human geography, Vidal de la Blache, in particular, had already, in the nineteenth century stressed the importance of this concept and the overwhelming impact of the milieu on the individual, on his endeavours and much of his activity. The milieu governs behaviour and the productive activity of the group. This is not, however, a case of strict causal determinism. Between man and his milieu there exists a range of actions and reactions. Man is both the product of his milieu and a factor acting upon it. Although he is largely dependant on his milieu for what he is, man is also the creator of his own circumstances.

The milieu, regarded as a set of interactions, may have an educative function : man is both transformed in and transforms the milieu : he has to learn and acquire training while solving problems in real-life situations. This is the very basis of functional literacy. In the operational seminars organized by CREFAL in Latin America as part of rural development activity, the milieu is defined as a dynamic triangular relationship between the natural environment, man and the social milieu. In the operational seminar in Sudan organized by ASFEC in 1971, the milieu was taken as a situational context for development action : it was tentatively defined as an interaction between, on the one hand, physical and human factors – demographic, psychological, social, economic and cultural – affecting a given social group at a particular time and, on the other, imported factors making for change, i.e. the requirements of a socio-economic development programme. The participants in the second operational seminar in Tunisia (1972) on family planning considered that the very nature of the programme presupposed, in the population concerned, profound changes in the traditional outlook on life and therefore interpreted the milieu not as a milieu in itself, living its own life, with its special characteristics and its various aspects open to analysis, but as a dynamic relationship between, on the one hand, the population – men and women, young and old – with its living and working pattern, its standards, its degrees of resistance to change and its hopes and expectations (all of which are interdependent elements) and, on the other, the objectives of the national family planning programme.

THE DEVELOPMENT SCHEME

Study of the milieu begins with study of the change factor, i.e. of the development undertaking as the frame of reference for functional literacy, the effect of which is to suggest, entail or produce changes within the social groups concerned. What is needed is to gather the necessary data in order to make an inventory of education and training requirements and the means of satisfying them so as to make it easier to incorporate a "made-to-measure" educational programme into the development scheme. This analysis covers the structures and general specific objectives of the undertaking, together with operational plans, the means employed, the resources (material, financial and human) available and the policy adopted in respect of human advancement.

It is equally important to make sure that the heads and staffs of development authorities are genuinely intent on development or have what A. Meister calls the requisite degree of determination in development action. Furthermore, it has to be admitted that many decisions and instructions suffer a sea-change on their way from the headquarters of the development scheme to the village.

So far as the development project is concerned, the study of the milieu basically covers :

– identification of the specific development objectives; and,

– identification of the obstacles to programme application in the field.

The specific objectives are the innovations proposed to the populations in question. The aim of a seminar devoted to rural development may, for instance, be to introduce high-yield varieties, to improve certain farming techniques, to mechanize farm equipment or to set up co-operatives. These objectives may be technical and occupational, socio-economic or even social, as the case may be. They should be inventorized as fully as possible, for they are essential basic data which enable the teams of participants to define educational and training objectives in line with development objectives and to adapt programmes of education to the requirements of development activity.

An equally important task is to list the problems inhibiting or impeding development activity in the target areas, particularly those problems which, at the time of the seminar, are of immediate concern. While on the subject of rural development programmes, let us cite, for the sake of illustration, examples taken from various operational seminars. We find problems of an institutional kind, such as the lack of effective co-ordination between the various agencies operating within the same area, or a shortage of technicians. Then there are such economic problems as the lack of credits for farmers, unstable producer prices, the stranglehold of middlemen, and difficulties in obtaining fertilizers or insecticides. Further problems are of a technical and occupational character and concern inadequate technical and vocational training, faulty farming methods, and so on.

Finally, there are socio-cultural problems, such as illiteracy or lack of education, lack of incentive to adopt suggested innovations, lack of receptivity to scientific information, a fatalistic attitude to change, and so on.

In the operational seminars on population questions, the problems can be divided into appropriate categories: medical problems such as the side-effects of contraceptive methods; psychological problems such as rumours or the reluctance of individuals to discuss sexual matters openly; institutional problems such as the lack of trained staff and organized health facilities: economic problems, such as very low living standards and use of child labour; socio-cultural problems, such as illiteracy, the attitude of adults to fertility, certain religious beliefs and the desire to ensure male progeny or keep faith with the ancestors.

Some of these problems are not amenable to educational action, at least not on a local level, whilst others to do with individual competence and with beliefs, attitudes and behaviour call for acquisition of knowledge and appropriate behaviour patterns, and are generally amenable to such action. They may in some instances serve as a starting point for analysis, by participants in an operational seminar, of educational and training needs.

At this stage in the seminar, the shortage of time obviously precludes all but a rapid survey of the development scheme. There can be no question of a systematic and thorough study of the processes of change. Let us not forget that an operational seminar does not set out to be anything more than an exercise. What is more important than the accuracy of the data gathered is the methodological approach to data collection and use.

This initial quest for facts relating to the development scheme may follow four methods :

– study of previously published technical material on the scheme;

– study of information documents prepared in advance for participants in the seminar;

– talks by the directors and senior personnel of the scheme, followed by discussion;

– a group interview by participants in the seminar with the director and senior personnel of the development scheme.

The last of these methods was profitably used during the operational seminar in the Sudan in 1971. After an introduction covering the objectives and methods of the operational seminar, presented by one of the organizers, the following questions were put to the directors and personnal of the Gezira Scheme :

1. What are the main economic objectives of the scheme under its five-year development plan (1970-1975) ?

2. What are the priorities of immediate concern ?

3. How is the participation of farmers in agricultural development programmes viewed under the scheme ?

4. What standard of knowledge and skill is required for the implementation of these programmes ?

5. What are the training requirements ?

6. What are the main problems which beset development action and are due to a lack of knowledge and skill?

7. What action has been taken under the scheme to remedy these?

The data collected were classified and tabulated, thus giving the participants in the seminar a clear and accurate over-all view of the problems involved. This technique is being used in other operational seminars.

THE DEVELOPMENT SCHEME AT THE IMPLEMENTATION STAGE

The basic documentation and the statements of the directors and staff concern the development scheme as a whole and generally refer to the entire geographical area covered by the programmes, but in an operational seminar the work of each of the teams is centred on a single community What are the specific objectives of the development project in that community? What innovations are proposed under the development programmes? What are the problems facing development activities? To find the right answer to these questions, each of the teams turns to the technicians responsible for carrying out the development programme locally, whose work brings them into direct contact with the population of the community assigned to each team. It is noteworthy that in many seminars the technicians, engineers, agronomists, extension workers, doctors, health workers and others are full members of the teams, which does much to facilitate collection of the necessary data. These data will put each of the teams on the right course, so to speak, in its initial contact with the local community and enable it to draw up, on the basis of information supplied by the development workers, a preliminary research hypothesis as close as possible to the realities of the situation. The Togo operational seminar of 1973 provides an excellent example of the contribution of a development worker to discovery of a milieu and the preparation of an educational programme in keeping with the real needs of the population.

In the operational seminars concerning family planning, study of the local context includes a detailed inspection of the clinic serving the region and an interview with the health workers, which enables the teams to familiarize themselves with practical methods and ascertain statistical data, the problems raised by adoption of the recommended methods, side-effects of such methods, the attitude of the public, the rumours prevalent in the region concerning side-effects, and other difficulties impeding application of the family planning programme.

FORMS OF POPULAR PARTICIPATION

We have reached a stage where it would perhaps not be amiss to outline a sort of typology of the development schemes which have served as the setting of various operational seminars held in many parts of the Third World. We shall take as a criterion or parameter here the degree of free individual participation in the development programme. Any development scheme calls for public participation. We may imagine a sort of scale representing the various types of participation. At the extremities of this scale – at the poles of this continuum or continuous series, to use a social science expression – we find, on the one side, spontaneous or voluntary support and, on the other, imposed or even compulsory participation involving constraint. The reports of the operational seminars show that the form of participation depends, first, on the type of project and on the ways in which it is implemented at the community level. How do those in charge of the scheme envisage the participation of individuals at the implementation stage? Do they seek the voluntary support of the people concerned, appealing to their freedom of choice or do they prefer to resort to authoritian measures, regarding cumpulsory participation and constraints as essential to the smooth running of the scheme? These variations in the mode of participation by the public may seriously affect individual attitudes towards the educational and training activities which form part of the development project.

We shall mention just three examples of development schemes, each illustrating a particular form of participation.

The first example is taken from the operational seminar held in June 1971 at Lombardia, in the Mexican State of Michoacan. It involved an agricultural credit bank established in 1935 and mainly concerned with giving farmers benefiting under the agrarian reform the necessary means and resources for improvement of their holdings. This banking institution was founded by the central government and intended as a social service to raise the living standards of the farmers in the region. The bank not only grants advances to farmers but delivers fertilizers and insecticides produced in its own factories. It also helps farmers to market their crops. Each farmer is in principle entirely free to choose whether to avail himself of the bank's services, but in practice he needs credit facilities and must either apply to the bank or borrow from money-lenders. The background study made during the operational seminar showed that most farmers did not have the requisite level of education to understand the complexity of banking operations. The customers are generally incapable of keeping a check on their personal accounts as they are unable to do written arithmetic. The bank takes care of this, but a good many farmers are mistrustful of it. They nearly all have the impression that the bank is only worried about recovering its loans, for which they are unable to calculate the annual interest of 10 per cent. The question of guarantees, the complexity of loan procedures, the illiteracy of the farmers and their distrust due to the lack of a tradition of producer credit all give rise to a set of problems amenable to functional literacy work.

The second example is taken from the operational

seminar held in Khon Kaen Province in north-east Thailand in 1973 concerning the region's agricultural development programmes. It illustrates an induced type of participation; the individual is always free to opt for or against the innovation proposed but he is urged to participate by the development workers, who do their best to convince him of the advantages of the new methods or new behaviour patterns. In line with national priorities – agricultural development is the top priority in Thailand – the competent authorities had fixed, for Khon Kaen Province, a list of specific objectives including increased rice production through the introduction of high-yielding varieties, the use of fertilizers and insecticides, improvment of the quality of the kenaf produced, organization of agricultural co-operatives, etc. In order to encourage farmers to adopt the innovations proposed, the provincial government set up a network of agricultural extension workers and demonstration centres. But there were in fact too few extension workers to cover all the villages of the region. Their activity was confined to sporadic contacts with the village headmen and a few favoured farmers who were supposed to pass on the agricultural innovations to the others. In one of the test villages of the operational seminar the farmers were most receptive to the new techniques but they lacked the necessary information. For the choice of improved seed and the use of fertilizers, they followed the all too often biased advice put out in the abundant commercial advertising broadcast by the local radio stations (every family possessed its transistor radio set). Most farmers did not know how to make rational use of fertilizers or insecticides. For the marketing of their crops they were dependent on middlemen who visited the village regularly. The idea of organizing themselves into a buying and selling co-operative did indeed seem attractive to them, but 33 per cent of the villargers questioned had only a very superficial notion of what a co-operative was and the others simply had no idea at all. Such a situation calls for a functional literacy as a sort of preliminary to agricultural extension work, enabling the farmers to avail themselves of technical information from which their lack of education had previously debarred them.

The third example concerns a type of participation where the individual is under commitment and has to fulfil a series of obligations coming in the form of instructions, and sometimes accompanied by sanctions or penalties in the event of non-compliance or faulty compliance. This example is taken from the operational seminar held at Wad Medani in Sudan in January 1971, the setting for which was the Gezira Scheme involving the planting of two million acres (mainly under cotton) reclaimed from the desert by means of a vast irrigation system fed by dams on the Blue Nile. The authoritarian approach adopted from the outset by those in charge of the project can be explained by the need to transform the tribal populations of the region, who are originally pastoral nomads or semi-nomads, into sedentary farmers capable of applying the relatively complex methods

Farmers of Gezira
Operational seminar in Sudan (1971)

required in cotton-growing such as continuous row sowing, thinning out, hoeing, weeding, pest control, and picking, in addition to extremely precise and painstaking irrigation. All this work is under the supervision of inspectors, who were recently given the additional task of agricultural extension work. Each farmer cultivates some thirty acres under contract according to a plan established by the scheme's technicians. The Gezira Scheme Act of 1960 stipulated that the Sudan Government should receive 36 per cent of the revenue, the farmers 49 per cent, the local municipal councils 2 per cent, the social development programme 3 per cent, and the board of management of the scheme 10 per cent. The Gezira Scheme began in 1910. Sixty years or so later a good many of the problems impeding the development plans are due to socio-cultural factors, particularly the survival of age-old nomadic traditions. An example of this is tribal discrimination, which interferes with the smooth running of the co-operatives since members give people of their own clan priority for positions of responsibility. Then there is an anti-economic attitude to livestock, regarded as status symbol (the farmers even refusing to sell milk, an action beneath their dignity). There is also an attitude of disdain for manual work and the farmers prefer to hire outside labour, which reduces their incomes. Such events as births and marriages entail extravagant spending that means less money for productive investment, and so on. Other problems stem from the farmers' ignorance of agriculture and lack of basic skills, faulty farming methods, malfunctioning of co-operatives, etc.

The operational seminar was held in January, the cotton-picking season which that year promised an exceptional harvest. The teams of participants took as the starting point for the background study those problems which were of obvious topical significance, such as the lack of outside labour for picking and hence the need to mobilize family labour, faulty picking techniques and unsound irrigation practices, all problems which on the face of it can be overcome by educational action.

THE EDUCATIONAL INFRASTRUCTURE

The technical organization of an operational seminar should take account of a number of prerequisites. One of these, which generally affects the smooth running of the programme of work, is that there should be, in the communities selected for field activities, an educational infrastructure – literacy or adult education centres and community centres pursuing educational aims. These institutions will provide the material facilities for educational action and experimentation. Experience shows that one or other of several situations may arise, and we shall consider them briefly below.

1: Literacy centres or other adult education institutions already exist in the selected communities.

If literacy teaching is involved, it may be of the traditional or the functional type. In a good many operational seminars, the existing centres in the test villages dispensed traditional literacy instruction confined to basic reading, writing and arithmetic. Methods and techniques were generally based on the use of a single elementary reader. The instructors were mainly primary teachers or volunteers, paid or unpaid, and had been picked as having a certain standard of education. The conversion of these traditional centres into functional literacy centres – at least for experimentation purposes – usually raised no difficulty. The operational seminars which have benefited from the existence of previously established functional literacy programmes are few and far between. Mention should be made here of the seminars held in Indonesia and Thailand, where the aim was no longer simply to teach the basic skills of reading, writing or arithmetic, but to provide education accompanied by training related to social, economic and cultural development objectives. In these centres, literacy instruction with a basically educational approach endeavoured to help adults, by means of the written and printed word, to exercise their conceptual thinking and their ability to observe, reason and judge, thereby paving the way for a process of continuing education.

2. The operational seminar coincides with the launching of a literacy programme in the test communities

In this case the operational seminar may be regarded as a launching operation. In Togo, where a functional literacy programme with a well-established infrastructure is proceeding successfully, the organizers have decided to open the literacy centres in the three test villages in conjunction with the operational seminar. The pupils were enrolled for the course. The instructors, who were volunteers, had been picked by their villages and trained by the national literacy service. It was left to the participants in the seminar to prepare the programme of the first sessions of the literacy centres.

3. There is no existing or projected educational institution which might serve as a base for the educational and training work of the operational seminar

Owing to lack of time, it is seldom an easy task to set up a literacy centre, to get the public interested and to find instructors. But the real problem when there is no educational institution for experimental purposes is less a question of time or organization than of ethics. It should be remembered that the educational activities carried out during the operational seminar are intended for men and women at grips with real problems. An education and training centre opened temporarily for the duration of a seminar stands little chance of survival once the seminar is over. Opening centres when there is no certainty of their remaining in operation is likely to cause much frustration and disappointment in the local population and subsequently to arouse a great deal of scepticism with regard to any further activities undertaken by the authorities.

A good many operational seminars devote a study session to the existing educational infrastructure, notably for literacy work and adult education in general. This session is more especially intended for development programme workers and foreign participants unfamiliar with the prevailing educational system. In order to facilitate the work of the participants, the authorities responsible for education prepare a document outlining the philosophy behind literacy work and adult education, their general and specific objectives, existing institutions, the working of the system, the characteristics of the staff and programmes, recommended teaching methods and procedures, and the problems encountered in carrying out the programmes. Literacy and adult education programmes have seldom, it must be acknowledged, been designed specifically to meet development needs, but there are exceptions and one is the national functional literacy programme in Thailand which served as a basis for the educational work of the operational seminar held in that country in 1973.

Functional literacy work has often been criticized as being geared to predominately economic considerations. In Thailand the national functional literacy programme relates primarily to cultural considerations. It is based on the four truths of the teaching of Buddha: "Life is suffering"; "Suffering can be relieved"; "To relieve suffering, its causes must be identified"; and, lastly, "Only those who seek the truth of suffering and its causes can choose the path to its elimination". Buddhism, with its resolutely agnostic outlook relegating metaphysics to the realm of the unknowable, applies itself to a rational form of investigation into the problems of life which is within the grasp of all. Ignorance – or rather the refusal of knowledge – is held by Buddha to be the root cause of all suffering and servitude. It was on the basis of this philosophy that the Thai educators drew up their functional literacy programme. The approach adopted by the Adult Education Division proceeds from investigation and analysis of the causes of the sufferings undergone by

the populations of the country, beginning with the rural populations of the outlying regions. In practice, it is more simply an inventory of the problems of a given milieu, which are subsequently translated into educational objectives and content. The literacy programmes are thus "made-to-measure" in accordance with specific needs which may vary from region to region. The Adult Education Division listed 73 problem situations for the northern region of the country, where the functional literacy programme was launched in 1970 in the form of a pilot project. Of these 73 problem situations (also referred to as "concepts"), 18 concerned agriculture, 30 health and family planning, 11 economic matters and 14 civic responsibilities. Each of the topics is made the subject of a lesson, with suitable educational material in the form of "problem" posters and reading, writing and arithmetic sheets which put together form a reading booklet. A literacy session lasts six months and comprises 180 hours of instruction. The teaching staff is recruited from among primary teachers. The initial phase of the pilot project has been the subject of an evaluation concerning solely the acquisition of reading, writing and arithmetic. A particularly significant feature is the extremely low drop-out rate, which in 1971 was no more than 12 per cent.

INITIAL CONTACT WITH THE COMMUNITY

The time has now come for the teams of participants to make contact with the community in which the educational activities are to be organized. At this stage, the

Getting to know the community (Indonesia, 1973)

contacts can be nothing more than general. The essential aim is for the participants to be able to make themselves known to the people and become accepted by them. It is also an opportunity to avoid confusion or distrust by informing the local authorities and people of importance about the aims of the operational seminar and seeking the co-operation of those living in the area. The aim is thus to establish a climate of confidence and initiate a dialogue. This initial contact frequently includes courtesy visits to the leaders and various important figures in the community. The reception the participants are given very often enables them to learn the ceremonies of welcome and the sometime very complicated etiquette observed in certain societies, and to appreciate the display of hospitality which is a feature of country people almost everywhere in the world.

BRIEF GENERAL STUDY OF THE MILIEU

It is vital for the participants to be able to get to know the living conditions of the community which is to serve as the context for the educational activity. The study of local conditions makes it possible to grasp them as they actually are, to understand the life of the group as an interrelated whole, to see how the physical environment governs all productive activities and how the social and economic environment determines the conditions in which the people live. The study also embraces group structures and the cultural patterns which have shaped the people's behaviour and attitudes in an individual and original way, and aims to identify the institutions and bodies set up to promote development as well as the linguistic problems which could arise. It has to be admitted that through lack of time, the study of the local community in most operational seminars is reduced to a cursory consideration of few basic data. At the Togo seminar, thanks to a division of labour, the teams carried out the study and the survey of educational and training needs simultaneously. For the first operational seminar held in Mexico, CREFAL had prepared, well in advance, very detailed studies of each of the four communities selected for practical activities in the field.

IN-DEPTH STUDY OF THE MILIEU

Formulation of research hypotheses

Although at this stage each of the teams is fully informed about the aims of the development scheme and about the problem situations as seen by those in charge of it at a regional and local level, the essential ingredients of an "educational response" are still lacking. To begin with, the members of the community have no idea what those aims are, and the real motives which explain resistance to the proposed innovations have not been identified. It is that the members of the community do not have the necessary knowledge or the required level of education ? Is it that they do not possess the know-how, skills or occupational qualifications needed by the development programmes ? Why are the attitudes of some people unfavourable ? In other words, why do development programmes run into difficulties ? Information obtained at working meetings with those in charge of the development scheme will have given the teams ideas for research hypotheses. These conjectures have to be verified in the

particular community and compared with the actual circumstances of the local environment so that activities can be planned which meet the educational and training needs of those concerned. It is nevertheless important, right from the start, to focus research on factors which are amenabled to educational action. These are :

– the knowledge possessed by individuals – what they actually know as it relates to the content of the development programmes, what they ought to know but do not;

– the skills which individuals are supposed to have in order to participate effectively in the development programmes and make them successful.

– the way individuals behave – what they actualiy do, which does not always correspond with what they know and may be in contradiction with what they accept as being true or useful;

– attitudes – what individuals are predisposed to do or accept or, inversely, not to do or accept;

– expectations – what individuals would like to do, what they hope and wish to achieve, or in other words, the level of their ambitions and the aims they set themselves in their work or social life.

Selecting topics for research

An operational seminar is only an exercise and as such is subject to numerous constraints. The research done as part of a genuine functional literacy or adult education programme should normally cover all the problem situations which hinder the implementation of the development programmes and which would be amenable to education and training activities. An operational seminar, however, is a race against time. In addition, its programme includes only a limited number of education sessions, numbering three or four at the most. There can thus be no question of the research going deeply into all the problem situations identified by those in charge of the development scheme. Every team must make a choice from among the problems discovered.

In the Sudan seminar (1971), one of the teams chose the following four problem situations :

– not enough members of the family were helping to harvest the cotton;

– methods of picking and baling the cotton were poor;

– faulty practices were followed in irrigating the wheat;

– little was known about the parasites which attack the wheat in January and February.

In the same seminar, another team chose the following themes :

– mechanization of wheat and groundnut farming;

– the crop rotation system;

– improved seeds;

– the judicious use of fertilizers.

It should be noted that the second team used different methods in its approach from those used by the first team. The starting point for its research was not problem situations but specific aims of the development scheme. Its research aimed to identify the initial level of knowledge possessed by the farmers in relation to the implementation of the programmes mentioned above, and also the level of knowledge required for the corresponding work. Comparison between the two levels of knowledge would make it possible to decide what should be included in the education programmes.

Determination of the target group

It is important at this stage of the operational seminar's work to decide who are going to be the subject of the research – to decide on the target group, to use a term made popular by sociologists. In theory, the target group includes all those directly concerned by any development programmes. Because of the limitations of an operational seminar, the surveys cannot cover large numbers of people. Statistical procedures thus have to be used. Because of the great variety of contexts in which operational seminars have taken place, there are certain variations in the processes adopted by the participating teams. One fact which should be emphasized is that a similar variety can be seen in the processes adopted by one and the same seminar because of the non-directive nature of its proceedings. In the operational seminar in Tunisia (1970) which took three *précoopératives* as its survey area, each of three teams used a different method. The first team made use of sampling. As this team's report notes, the samples selected represented scarcely 15 per cent of the total group and thus had no statistical value since the group, the members of the co-operative, numbered only 54 individuals. As the report sensibly remarks, however, "the aim of this team was not so much to achieve absolutely accurate scientific results as to show how to use the sampling method, provided it was borne in mind that, strictly speaking, it could be applied only to larger groups of people". To measure the representativity of the sample, a preliminary enquiry would have been necessary to divide the population into *a priori* categories (called strata).

The second team decided to conduct its survey among all the members of the co-operatives assigned to it, who were nevertheless not very numerous (57) – an exhaustive enquiry only has scientific value if it involves all the people concerned. Owing to lack of time, the second team was unable to contact all the members of the co-operative. Because of the very nature of its survey (non-directive interviews interpreted by experts), the third team opted for a survey covering a small number of the 163 members of its co-operative.

The Sudan seminar (1971) also reveals a variety in the choice of target groups for the study of the milieu. The team operating in the village of Wad-El-Naim took into consideration only literate farmers and agricultural workers. The team allotted to the village of Kareiba chose two distinct groups, the 29 pupils at the literacy centre and 25 farmers who had been through full or

partial schooling. Finally, the team assigned to the village of Beika restricted its survey to the group of farmers and agricultural workers directly involved in the growing of groundnuts.

In the seminars in Tunisia and the Sudan, the choice of target groups was dictated by the aims of the development project which were principally of an economic nature, and was thus made on the basis of social and occupational categories. It goes without saying that in operational seminars connected with population questions, the survey needs to be directed at different categories of the population. At the operational seminar held at Nabeul in Tunisia (1972), one of the teams made a distinction between the following categories : (a) married women, (b) married men, (c) unmarried of both sexes and (d) people, particularly the leading figures in the community, who could possibly help or hinder the propagation of the family planning programme at the local level. Studies carried out by the other two teams covered only two categories, adult men and adult women.

BUILDING UP A PICTURE OF THE ADULT

In order to find out what problems are amenable to educational action, it is essential to identify the level of technical knowledge of the individuals making up the target group, what they know and what skills they possess, and also to discover their real level of education, particularly individual deficiencies which prevent them from reaching the aims provided for in the development project. In seminars on population questions it is also necessary to find out how well individuals are informed about the patterns of behaviour recommended by the programme and the extent to which these behaviour patterns are accepted and adopted.

The technical and occupational level

In a development scheme where economic considerations are dominant, teams attempt first and foremost to determine the technical and occupational level of the individuals concerned. In most operational seminars, the participants have used questionnaires to gather the necessary information. For participants unfamiliar with survey techniques, this is an opportunity to learn how to prepare and use this research tool.

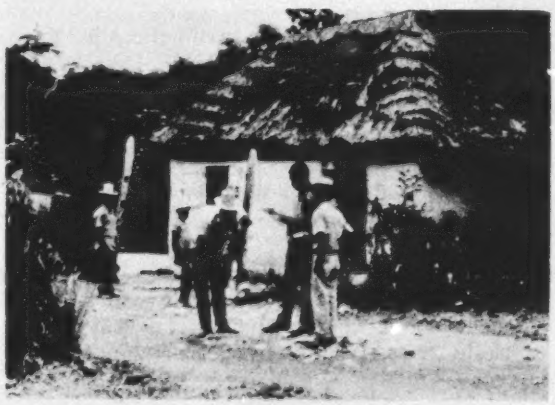
In the Sudan (1971), one team's questionnaire was prepared under the supervision of the team's social scientists in co-operation with agricultural experts from the Gezira Scheme. The questions were arranged according to the topics chosen for the study of the milieu and written in a manner which took account of the language spoken by the farmers, a dialect of Arabic, and of the vocabulary, syntax and set expressions used by those who were to reply. It contained 42 questions, most of them requiring only the answers yes or no.

The farmers of the Gezira were very conscious of their duty of hospitality towards the visitors and tended to give replies which they thought the pollsters wanted. Many questions concerning farming practices were factual – respondents were asked if they acted in such or such a way. In connexion with the farming practices which the agricultural specialists had singled out as usually being incorrect, the questionnaire included evaluation questions which meant that the respondent was asked to give an opinion about the way the farmers usually work. This made it possible to discover indirectly the farmer's own knowledge and know-how. Each question selected was chosen with the aim of the survey in mind.

The operational seminar programme usually makes provision for a prior test of the tools of research. Trying out the questionnaire with a control group, a small number of individuals not included in the survey, often reveals faults in the way it is constructed, badly worded questions, poor arrangement, useless items or the omission of important points.

The target group of the survey consisted of a total of 108 people. Circumstances arose which meant that the team was able to distribute the questionnaire to only 25 farmers, seven of whom were attending the village literacy centres. The sample contained 12 illiterates, one semi-literate and 12 literates. The information gathered by the survey confirmed to a large extent what the agricultural experts of the Gezira Scheme had said about the problems of technical knowledge and methods of work, particularly the existence of faulty techniques for cotton picking, errors with regard to the irrigation of the cotton plants, faulty methods of irrigating the wheat fields in January and February, and inadequate knowledge of the diseases affecting wheat in January and February. As concerns womenfolk helping with the cotton harvest, only four out of the sample of 25 respondents stated that they were against the idea of their wives and daughters taking part, the great majority saying that they should always take part in the cotton picking. The team could have conclued that the problem of the women not lending a hand, a problem mentioned by those in charge of the Gezira Scheme, was not one which really arose in

Study of the milieu (Haiti, 1974)



the village selected for the survey, but cross-checks within the questionnaire made it possible to evaluate the accuracy of the information and contradictions in some of the replies showed that the problem of non-participation was in fact a real one. Comparison between (a) the number of a respondent's dependents old enough to help with the cotton harvest and (b) the number of seasonal workers which the respondent employed during the previous harvest for a given area of cotton fields, showed considerable differences between what the farmers said and the actual extent to which the members of their family helped.

Analysis of the results of the survey on farming methods also brought to light a significant fact – the absence of correlation between the respondents' level of literacy and their technical proficiency. This is probably not accidental : the fact of being literate or having been to school does not necessarly mean that a person is better informed about farming practices and even less does it mean that he can apply these practices more effectively. The percentage of correct replies to some of the questions was higher from the illiterate respondents. Far from reducing the value of functional literacy work, this fact, on the contrary, increases it. Indeed, both the village school and the traditional literacy centre are still all too often marginal, formal establishments, divorced from the actual circumstances of the farmer's life. Their curricula usually have very little to do with changing the environment. Knowledge is dispensed without reference to the needs of a world undergoing profound change. Functional literacy instruction, on the other hand, uses actual situations in a given environment to teach people to analyse and communicate so that they can adapt to the changes for which their participation is necessary.

In identifying the technical and occupational level of the people concerned, the operational seminar in Haiti followed a course similar to the one adopted in the Sudan. At Camp Perrin, one of the places involved in the survey, the team of participants based its research on the knowledge, skills, behaviour, attitudes and expectations of the coffee-planters with regard to farming practices. The questionnaire was constructed around the problems encountered by the *Institut Haïtien de la Promotion du Café des Denrées d'Exportation* (IHPCADE). This institute gives priority to enlarging coffee plantations and increasing production. The local agent recommended the instruction of new varieties, particularly Katura which is less vulnerable to hurricane damage, and the regeneration of old plantations. From the problems mentioned by this agent, the team chose those which could be tackled by education and training activities, such as the planter's lack of training in agricultural techniques like routine pruning and pruning to promote new growth and ignorance of the diseases which attack coffee plants, particularly sooty mould which the planters did not know either to treat or prevent. The questionnaire was tried out initially on five planters in a neighbouring locality and revised so as to contain only those questions which could provide information of use in subsequent educational activities. To make sure that the replies were frank, the team intentionally left out any question which could be interpreted as indiscreet and thus provoke the distrust of the planters. The results of the survey enabled the following problems to be detected :

– ignorance of how to make a judicious choice of coffee varieties and how to select seed;
– ignorance of the techniques of transplanting coffee seedlings;
– relative ignorance of fertilization practice;
– ignorance of diseases affecting coffee plants;
– ignorance concerning yields per unit of planted area.

The keyword descriptive of each of the problems discovered by the Camp Perrin team is "ignorance". The information gathered by another team, however, during the same seminar, showed that knowledge could also constitute a problem. This team, operating at Sainte-Hélène, another locality involved in the survey, had directed its enquiry to the growing of maize, the principal agricultural crop in the region, increased production of which was one of the development aims. The field survey showed that 30 per cent of the agricultural processes known to the farmers were not effectively applied, or in other words that the farmers did not necessarily make use of what they knew. Where innovations are concerned, the gulf between what is known and what is actually practised is a phenomenon which has been revealed almost all over the world. It is not enough to acquire new knowledge : this knowledge has still to correspond to a value accepted by the person concerned. The farmers at Sainte-Hélène had indeed learnt a rational method of sowing maize from demonstrations by agricultural extension workers, but continued to sow their seed in the traditional way. The demonstrations had, in fact, given the farmers new knowledge but had not changed their way of thinking. If farmers work in a certain way, which we might call traditional, it is because this is the result of a chain of reasoning. So long as the links in this chain of logic remain unknown, it is unlikely that the farmers can be induced to accept a different point of view. Any attempt to change a person's way of thinking, reasoning and judging, and to get him to adopt other ways which conform more closely to the requirements of development has to proceed from his own system of logic, from the way he interprets facts in the light of his own experience, from his own personality and from his whole system of values. Such changes call for education and training activities and these, in the case of illiterate or semi-educated people, are called functional literacy work.

In the two examples which we have just mentioned, those of the Sudan and Haiti, the teams, in building up the picture of the adults' technical and occupational levels, made use of questionnaires as a tool of investigation and of interviews as a procedure for collecting information. In the operational seminar in Tunisia, 1970, one of the teams of participants used a different method consisting of a test with a rating scale. The aim was to measure the level of technical skill among the members of

the *pré-coopérative* in respect of the growing of vines and citrus fruit, with particular reference to farming practices, the use of fertilizers, pest treatments, irrigation and surface tilling. The tests had been prepared by the team in co-operation with the agricultural experts and managers of the co-operative. Each item in the test was assessed from the qualitative point of view on the following five-point scale :

4. full knowledge of the operation described in the question;
3. good but incomplete knowledge;
2. clearly inadequate knowledge;
1. confusion or anti-scientific ideas;
0. no reply.

The results item by item were converted into percentages for each of the five levels. The test revealed a relatively high level of technical skill, better for the cultivation of vines than for citrus fruits. It showed that the reason why farming practices and other operations were carried out was understood much less than how to carry them out. The team therefore thought it necessary to concentrate the educational activities on scientific explanations of why these operations were performed. The test had made it possible to discover what the members of the co-operative did not, as a rule, know. The problem chosen by the seminar as the educational topic was the damage caused to orange plantations by ophids.

Generally speaking, it is vital for educational activities to be based from the outset on concepts with which the group concerned is already familiar. In this, the teacher is only following one of the golden rules of teaching which is to proceed from the known to the unknown. If the education were based on concepts skill unfamiliar to the group, it would not go very far. A sample survey enabled the team to identify what the members of the co-operative already knew about insect pests, their attitudes to the problem and their motivations, i.e. what they were ready to do to solve the problem.

The level of information about population matters and the extent to which the methods recommended are adopted

In operational seminars on population activities, the teams of participants usually adopt an approach similar to that used in preparing educational activities based on economic development, but the investigation of the milieu obviously covers those matters highlighted by the analysis of problem situations carried out by those in charge of the programme at regional level. This analysis enables each of the teams to draw up its research plan in accordance with the objectives of the programmes and the essential needs of the population. In Tunisia (1972), Indonesia and the Philippines, the study of the milieu was carried out with the aid of pre-tested questionnaires distributed to samples of the population. There were questions concerning the variables of sex, age, marital status, number of children living or dead, occupation and level of education, so as to fit the respondents into categories, but the questionnaire also included sections making it possible to identify the obstacles hindering the application of the programmes. As the situation analysis was to lead on to educational activities, the questionnaires dealt primarily with what individuals knew about family planning, where they had received their information, their beliefs, attitudes and behaviour and motivations, and the extent to which the methods recommended were adopted, all things which depend on education.

A number of questionnaires also included a section on attitudes to education, both the education of the respondent's children and the person's own wish to receive more education if the opportunity arose.

In Tunisia as in Indonesia and the Philippines, most respondents already knew of the existence of family planning programmes and were able to mention one or more contraceptive methods. The surveys nevertheless brought to light interesting facts concerning their sources of information. The findings confirmed that, generally speaking, word of mouth was the commonest source of information. In one of the villages covered by the Tunisian seminar, the information programmes put out by radio and television (the village had quite a large number of television sets) had only a limited impact. In actual fact, 68.9 per cent of the married men and 76 per cent of the married women had learned of the existence of the national family planning programme by word of mouth from neighbours, relations, friends, political associations, etc. The basic survey carried out in Indonesia led to similar findings. In the Philippines, despite the fact that a high percentage of those replying to the questionnaire read newspapers or magazines (73 per cent in one village) and despite a high percentage of radio listeners (70 per cent in the same village), individual contacts were once again mentioned as the main source of information about population programmes. It would appear, at least in the areas where these three operational seminars were held, that use of the mass media to spread innovation has not come up to the expectations of those in charge of the programmes, communication in fact taking place between people, by word of mouth, using the networks of individual contacts. This phenomenon explains the superficiality of what the people knew about family planning, with distortions occuring as an oral message is passed on, and rumours spreading about the harmfulness of contraceptive methods to women's health. This phenomenon also explains one fact, perhaps vital from the educational point of view, noted in these three countries, which is that a considerable gulf exists between acceptance of the programme and its adoption. All surveys show a high rate of acceptance, particularly among women, but the same sources show that the level of adoption of contraceptive methods remains negligible. Accepting an innovation means that one acknowledges its value and usefulness in the light of one's own criteria, but a person may be sincerely convinced of the value of a new practice and still not adopt it. Adoption is a psychological process and, as social scientists have shown, a process of learning. Education thus appears as a means

of directing the learning process and influencing the behaviour of an individual in accordance with his own interests. Education must nevertheless not be confused with propaganda aiming to persuade or convince people of the advantages of a particular practice. In the three operational seminars to which we have referred, the aim was to use the individual's ideas about the aims and methods of the programmes to provide them with the necessary knowledge, explanations and background data to enable each individual to make an informed choice according to his own preferences and criteria.

The educational level

All educational and training activity has to take account of the initial level of the individuals for whose benefit it is organized. At this stage of the method being followed, the teams must establish the correct level for educational activities which it is their task to prepare. They have to find an answer to the basic question : how do the adults rate intellectually, i.e. what is their present level of education ? Are they completely illiterate ? If not, what standard have they reached in reading, writing and written arithmetic ? Can they read and understand the technical booklets put out for them by the development agencies ? Can they do the sums needed in applying any new technique ? Are they familiar with the basic reasoning associated with it ?

In interviewing the individuals constituting the sample during the initial inquiry into problem situations, it was possible to gather some information about their level of education. This was expressed in terms of years spent at school. Supposing this information to be accurate, however, it is frequently only of relative value. The people may have slipped back or even relapsed into illiteracy. In the seminar held in Indonesia, one team, using the findings of the background survey, classed the respondents into three theoretical categories :

– the illiterate, i.e. those who had never been to school or who had followed literacy courses for less than three months;

– semi-literates, i.e. those who had given up their primary education during the first three years or who had abandoned the literacy courses;

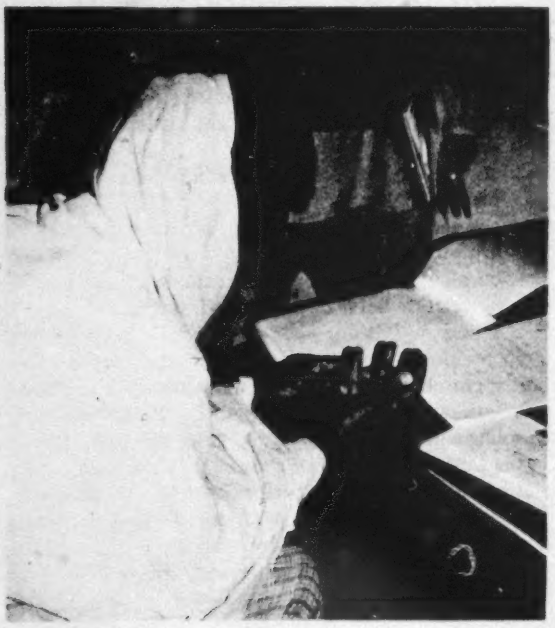
– the literate, or those who had been to school for four years or finished the complete literacy course.

Analysis of the control tests showed that some people who had never been to school or a literacy centre could be classified as semi-literate and that some people classified as literate had, in fact, become illiterate again.

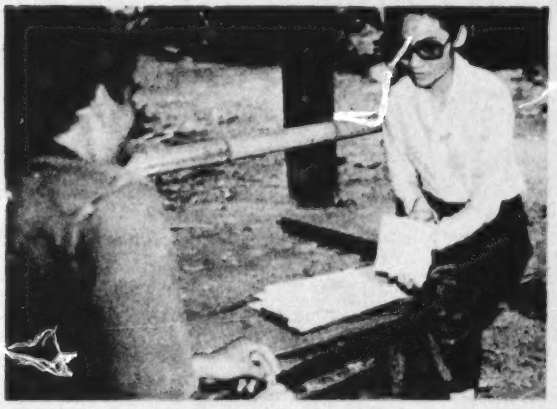
This is why the programme of a certain number of operational seminars includes the compilation and use of relatively simple tests to determine the real literacy levels of the people concerned and to identify more effectively the level at which the education must start. In addition, the findings make it possible for the teams, where necessary, to constitute several groups of adults, each of a similar level of education, as occured in Tunisia (1970), the Sudan and Thailand.

In Haiti, those attending the literacy centre at Camp Perrin underwent tests to measure the standard of reading aloud, silent reading, mental arithmetic, the reading of numbers, and written calculations. The test for reading aloud consisted of reading seven sentences of increasing difficulty. The silent reading test comprised three sentences, with control questions to measure the degree of comprehension. All the sentences in the reading tests were to do with coffee growing, the main or secondary occupation of the people involved. The mental arithmetic tests were presented in the form of real

Taking a mental arithmetic test (Pakistan, 1974)



Number reading test (Thailand, 1973)

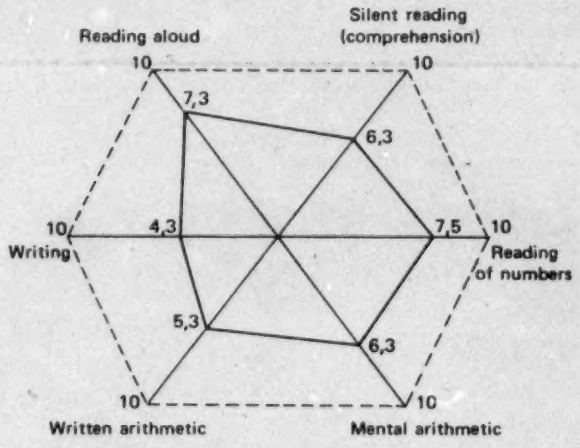


situations experienced by the people being tested. They were required to solve four problems, each of which called for one of the four basic operations, showing whether the subjects understood how to perform them. The number reading test was given with the aid of a set of flash cards, with one number on each card. The set began with a single figure and ended with a five-figure number. In the written arithmethic test, the subjects were asked to solve the same problems as for mental arithmetic, but in writing. Finally, the writing test contained difficulties of three levels, the use of printing, cursive writing and capitals. The team had prepared instructions in advance, to be followed in detail when each test was given. These instructions also included a marking scale in order to standardize the marking system. The team had prepared the necessary material for giving the tests, and the tests themselves had been tried out previously on a few subjects outside the group.

It may be wondered why the team included a mental arithmetic test. In actual fact, a person may be able to solve elementary arithmetical problems mentally without being able to perform the operations in writing. By definition, such a person is illiterate. The aim of the test is nevertheless to identify the starting point for the teaching of arithmetic. Literacy programmes too frequently fail to take into account the fact that an adult illiterate can count and generally knows how to perform the four basic arithmetical operations. Textbooks are often written in a rather naïve way, under-estimating the skill shown by adults in solving even fairly complicated arithmetic problems.

At Camp Perrin, the average mark obtained by all subjects for each of tests was calculated on a scale with a maximum of ten points. The results were set out in diagrammatic form (see diagram).

ADULT LITERACY RATING



RATING OF STUDENTS AT LITERACY CENTRE

RATING OF A LITERATE ADULT

The results obtained made it possible to classify the subjects of the tests in three categories according to their real level of education. It should be noted that no account was taken in this classification of the marks obtained in mental arithmetic. As the maximum score was thirty points, those who obtained an aggregate score of less than 20 were considered as illiterate. Those scoring over 20 but under 25 were classed as semi-literate and those between 25 and 30 as literate. The group was distributed as follows :

- illiterate : 21
- semi-literate : 10
- literate : 9.

One of the teams at the operational seminar in Thailand wanted to establish a correlation between the marks obtained in the reading tests and those in the arithmetic tests, as well as a correlation between the scores in the reading tests, those in the arithmetic tests, the level of education and age. It should be noted that the test had been given to a group of farmers, 15 men and 10 women varying in age between 17 and 56. One single individual had never been to school but 80 per cent of the sample had been to school for four years.

The coefficient of correlation was calculated by the Spearman or rank correlation method which is easy to use with a small population. The coefficient of correlation, represented by the Greek letter ρ is obtained by the following formula :

$$\rho = 1 - \frac{6 \Sigma d^2}{N (N^2 - 1)}$$

where d is the difference between the ranks of the paired items (e.g. the level of education and scores in the reading test) and N is the number of subjects in the sample.

The following results were obtained :

1. correlation between reading and arithmetic scores = .70
2. correlation between level of education and reading scores = .56
3. correlation between level of education and arithmetic scores = .62
4. correlation between age and reading scores = .05
5. correlation between age and arithmetic scores = .05

These results lead one to conclude that there is a substantial correlation between the standard of reading and arithmetic and between the length of the subject's schooling and his perfomance in reading and arithmetic. On the other hand, the tests showed no significant correlation between subject's performances and their ages.

One of the teams in the operational seminar in Pakistan established the following correlations :

1. correlation between reading and writing scores = .71

2. correlation between reading and arithmetic scores = .81
3. correlation between writing and arithmetic scores = .67
4. correlation between the level of education and the scores obtained in all the tests = .73

Interpretation of these coefficients would tend to confirm the hypothesis that there is a very considerable correlation between these sets of data.

The level of visual perception

Development agencies often produce posters, illustrations and charts at considerable cost to motivate the individuals they wish to reach, show them the advantages of a particular innovation and explain to them what needs doing and how to do it. Using pictures as a means of communication seems to those in charge of many development programmes a particularly suitable way of communication with illiterate people or those with little education. In many literacy campaigns, the reading books use drawings as teaching aids to facilitate the identification of a word or the understanding of a text. But does the adult identify the message which the conventional pictorial representation of reality is supposed to communicate to him ? What parts of this representation of the real world is he able to recognize ? What parts does he not understand ? Does he grasp the significance of the picture put in front of him ? Experience shows that a form of illiteracy exists which is too often ignored, that of picture-blindness. Any perceptions, in fact, whether through hearing, sight or touch, is based on an individual's past experience. The person will perceive only what he has learnt to recognize and identify. Visual aids easily decipherable by individuals accustomed from their earliest years to the pictorial representation of the real world in their environment will be meaningless to individuals who have never been exposed to such representations. It was clear from the first operational seminar held in Tunisia (1970) that visual perception, an essential element of the learning process, needed to be tested and measured in some way, particularly the interpretation of pictures.

At the Togo seminar, one of the teams chose the following six items in order to prepare a test on visual perception :

– item No. 1: identification of the message in a picture overburdered with detail;

– item No. 2: identification of the message from a picture showing the same subject but simplified (without any background);

– item No 3: identification of the message from a black and white picture;

– item No. 4: identification of the message from the same picture but in colours;

– item No. 5: grasp of the concept of perspective;

– item No. 6: interpretation of a stylized picture.

Each of the items contained three levels of difficulty corresponding to the three stages in the mental process

Visual perception test
(Philippines, 1974)

of deciphering a picture, viz: enumeration, description and interpretation.

The team drew up a scale of marks for each item ranging from 1 (minimum) to 4 (maximum). The drawings for items 1, 2 and 5 of the test were the work of artists in the team. For items 3 and 4, the team borrowed a colour poster used in the region for health education and reproduced it in black and white. For item 6, the team used a publicity poster for the development agency SORAD which provided the framework for the educational activity. The wording on it was masked. This poster represented a hand spreading fertilizer from a bag, together with a magnificent maize cob. Subjects who linked the three parts of the poster together obtained the maximum score. Nevertheless, a reply such as : "It's someone sowing maize from the bag" was considered as valid.

The test was set to 23 prospective students of the literacy centre who had previously undergone tests to measure their level of education, giving the following result : illiterates: 20; semi-literates: 2; literates: 2. The results of the visual perception test were as follows:

– item No. 1: (picture with a lot of detail) message identified by 13 subjects out of 23;

– item No. 2: (picture without details) message identified by 18 out of 23;

– item No. 3: (black and white picture) message identified by 12 out of the 23 people;

– item No. 4: (colour picture) message identified by 17 out of 23;

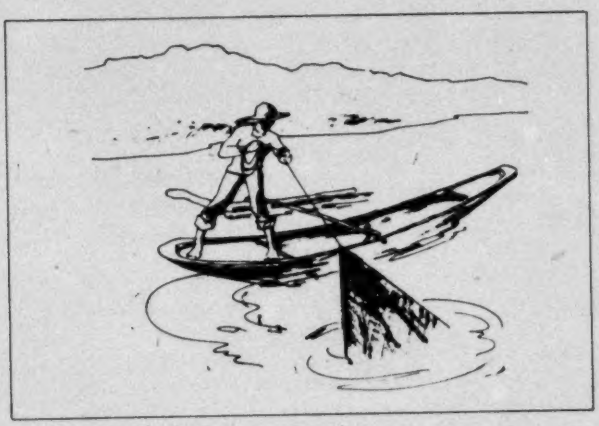
– item No: 5: (idea of perspective) message understood by four subjects; 19 did not understand;

– item No. 6: (stylized picture) message understood by three subjects; 20 did not understand.

It would thus seem that half the subjects were used to looking at pictures and that the other half would not have to try very hard to understand simple pictorial representations. Colour turned out to be a significant factor in understanding, and the number of people identifying the message increased from 12 in the case of the black and white picture to 17 for the coloured picture.

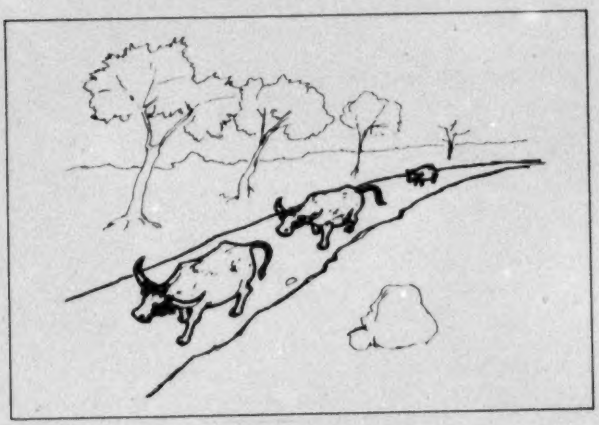
1. Picture with a lot of detail

2. Picture without details

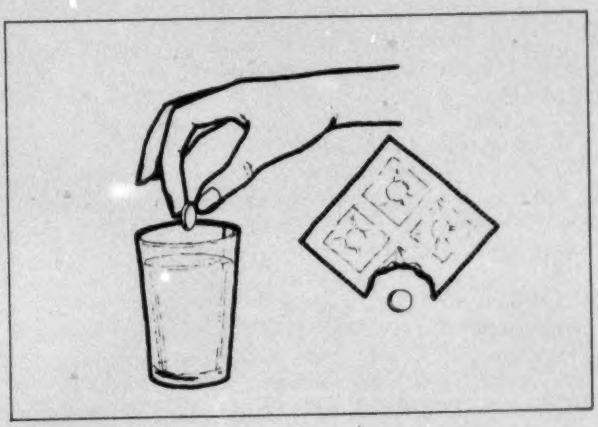


3. Black-and-white picture

4. Coloured picture



5. Showing the idea of perspective



6. Stylized picture

The idea of perspective and the stylized presentation of the message were not understood at all. This does not mean that they should be rejected but their use requires an introduction and needs gradual and planned teaching as part of literacy activities.

One of the teams at the operational seminar in Pakistan calculated the correlation between the level of visual perception on the one hand and the level of literacy and length of schooling on the other. The following results were obtained:

1. correlation between the level of literacy and level of visual perception = .82
2. correlation between the length of schooling and the level of visual perception = .68

The correlation between the individual's level of literacy and his ability to interpret visual messages is thus highly significant. The influence of schooling is less marked. Analysis of the results of tests in Thailand led to identical conclusions, i.e. that the length of schooling had no effect on the individual's visual perception. This could be due to the fact that education in school had not paid any attention to teaching pupils how to decipher and read pictorial representations of the real world. On the other hand, there was a significant connexion between the real level of education, as established by the tests, and the ability to understand the representation of the real world through pictures. On average, the scores obtained by illiterates in the visual perception tests were lower than those of the semi-literate, and the scores of the semi-literate were lower than those of the literate. This was true for all items except for the item concerned with perspective, a pictorial convention of which all the subjects were generally ignorant.

During operational seminars held in Togo, Pakistan, Haiti and the Philippines, we had the opportunity to set tests on identical pictures. At Agbetiko in Togo, the sample consisted of 23 prospective students of the literacy centre, all but three of whom were illiterate. At Deona in Pakistan, the test involved a group of 24 people, 19 of whom were illiterate. At Camp Perrin in Haiti, the sample of 40 included 20 illiterate, 10 semi-literate and 9 literate people; and at Talisay in the Philippines, the test was given to a representative sample of the village population, with an average level of education of five year's schooling and not containing one single illiterate. Below is a comparative table of the average obtained for each item in the visual perception test. The scale goes from 1 to 4, 4 being the highest score.

	Agbetiko (Togo)	Deona (Pakistan)	Camp Perrin (Haiti)	Talisay (Philippines)
Identification of a complex picture	3.3	3.0	3.1	3.8
Identification of a picture without details	3.8	3.2	3.2	3.9
Identification of a black and white picture	3.3	2.7	3.1	3.8
Identification of a coloured picture	3.8	3.0	2.8	3.8
Grasp of the concept of perspectives	2.8	2.8	2.5	3.3
Understanding a stylized picture	2.5	2.9	2.6	3.8

The figures of this table would seem to confirm the hypothesis that the level of literacy is a deciding factor in understanding pictures. Perspective, which is the conventional way of representing distance, should be avoided in illustrations for illiterates. It requires a gradual introduction and this should be part of an integral literacy programme. Interpreting a stylized drawing requires a certain level of abstract thinking which is not common among illiterates. The eye has to be trained to understand stylization in the same way as perspective.

To be valid, a visual perception test must be based on pictures which refer directly to the subject's experience. In Togo, a picture by one of the team members showed three men walking one behind another along a straight road. Their clothes and the way they were acting were "European". The villagers did not understand the meaning behind the picture since the straight road and the way the people were acting did not form part of their experience. On the other hand, pictures drawn by local artists and relating to the subject's own experience were better understood. The comparative table shows that colour is a real factor in understanding. Only the score obtained in Haiti seems to indicate the contrary but in fact, in the case of the item relating to the coloured picture, the artist had drawn a turkey, a familiar bird found in every farmyard, but had coloured it mauve, yellow, blue and red, giving a striking artistic effect but not much like the real colours of a turkey. Colour facilitates identification of a subject provided that it is realistic.

CREFAL'S APPROACH : "BASIC EVALUATION"

The study of the milieu as carried out in almost every one of the 27 operational seminars organized by CREFAL has two aims: to collect the basic information needed to prepare a functional educational programme for adults in which literacy is only one stage; and to decide on points of reference, with the aid of series of indicators, so as to be able to measure the individual, social and economic changes which take place as a result of the education programme. It was this second aim which led CREFAL to call the study of the milieu "basic evaluation". This approach is particularly justified and valid in

the case of operational seminars held as a prelude to the launching of full-scale adult education programmes. The initial evaluation carried out during the seminar will then make it possible to carry out a regular evaluation of the results obtained by the programmes and, where necessary, adapt the teaching processes to the new needs which may arise and to the difficulties and problems encountered.

Although the pattern worked out by the CREFAL specialists follows in broad outline the approach adopted in the operational seminars we have already spoken about, it nevertheless features some procedures all its own. On the basis of the general objectives of the development project, the participants in the seminar try, first of all, to identify the technical and occupational requirements and hence the knowledge and skills which the people involved in the development scheme must have in order to adopt the ideal working techniques for the attainment of the objectives of the scheme. For example, if the general objective is to double maize production, the requirements will be, depending on local conditions: to change the seed; to apply x kilograms of fertilizer Y per hectare at y centimetres depth at a given moment in the cultivation; to water for such and such a time at such and such a moment, in furrows of a particular depth; to use other agricultural practices in particular ways. Thus at the operational seminar in Honduras, based on co-operatives, 28 essential requirements were listed for increasing banana and maize production. The table drawn up by the participants indicates, for each technical operation listed and following the logic of their relationships, the knowledge needed for the operation and the scientific explanation or technical reason for it. These are the so-called non-occupational requirements, e.g. to change the seed, one must not only be acquainted with the new seed but also know the sources of supply and know how to use credit, and whether credit is necessary for purchasing the seed; one must also know how to calculate the cost price and the amount of interest and be able to write in order to submit a request for a loan. Education, health and hygiene are, explicitly or implicitly, integral parts of the ideal situation or end-product for which the development scheme is arising.

The second level of the basic evaluation concerns the community. The task is to study where it lives, its origins, its physical environment and natural resources, its communication facilities (postal service, telegraph, telephones); public services; social aspects, organizations or associations and recreational activities; school education and adult education; water supply; hygiene and drainage, housing; economic activities, e.g. trade, market, or craft work – in a word everything needed to build up an extremely detailed picture of the community. The information gathered by various appropriate means of enquiry is set down in tabula form to facilitate interpretation. The series of tables (the Honduras seminar produced 12) presents a complete ecological account since it takes into consideration the natural, the social and the economic environment. Analysis of the table makes it possible to grasp "the actual situation of people engaged in an organized process of change, an exercise which is absolutely necessary if education is to be able to meet their needs, or, if one prefers, if those in charge of this change are to be able to communicate with these people and succeed in their venture"[1].

The operational seminar then tackles the third stage of the basic evaluation, which is to determine the individual level.

On the basis of the lists of occupational and non-occupational requirements previously drawn up, the participants proceed to carry out a study of the type of individuals concerned by the development scheme and who will profit from the functional education programme. The task is to establish a list of indicators which will make it possible to determine the shortcommings of the people involved when faced with the requirements of their own development. To achieve this the teams prepare questionnaires and tests for the social survey, often basing them on models worked out by CREFAL specialists. The questionnaire includes a series of sections e.g. identification; family situation; type of housing; health; production factors, including technical skills, knowledge and attitudes to development objectives; the effective use of the services existing in the community; and social relationships. As well as being given a questionnaire, the people are asked to take reading, writing and arithmetic tests and a frequently very elaborate test of visual perception.

A certain number of statistical standards are adhered to in this survey e.g. the representativity and size of the sample and its applicability. The data obtained are codified in order to facilitate their arrangement and presentation, usually in the form of a table. For this, the participants use a rating scale based on a qualitative estimate. Let us assume, for example, that for the irrigation of a given crop, two things are to be taken into consideration : the appropriate time (say between 15 and 30 May) and the quantity of water per unit of time and area (say 200 litres per hectare per hour). With regard to the appropriate time, the rating will be expressed numerically on a points scale :

1 = never
2 = at any time
3 = before 15 May
4 = after 30 May
5 = between 15 and 30 May.

As regards quantity of water, the scale will be :

1 = nothing
2 = less than 200 litres
3 = more than 200 litres
4 = 200 litres in less than one hour
5 = correctly.

The results of the survey will provide indicators of

1. A. Tobelem, *Analyse résumée du système des séminaires opérationnels d'éducation fonctionnelle en Amérique Latine.* CREFAL, Sept. 1972, p. 9.

the group's average level of skills. It is therefore important to present them clearly since this facilitates their use by the teams. The sets of indicators are thus presented in "individual indicator matrices". These matrices of indicators, suitably decoded show the starting position of the adults with regard to the demands of a development project, and the problem situations classified in order of economic or social priority and also according to the agricultural calendar. What to include in the functional education programmes can be worked out by analysing the "content" indicators. The results of these tests on literacy and visual perception levels will provide "form" indicators making it possible to identify the methods and equipment to be used in the education programme. The basic evaluation, in its initial phase, thus leads to the preparation of education programmes which are "tailor-made" with regard to their content and form.

The approach propagated by CREPAL in many countries of Latin America assumes that those taking part in the operational seminars possess certain knowledge so that they can play an active part in the basic evaluation. Experience has shown that, social scientists apart, very few participants have any knowledge of the statistical techniques required. CREFAL specialists thus frequently have to devote one or more sessions of the operational seminar to the introduction of a few necessary theoretical ideas. A document published by CREFAL states that nearly three-fifths of a seminar are given up to this theoretical introduction to the detriment of the activities which should take up the rest of the time[1]. This has inevitably led to a certain entailment of freedom in the way the exercise is conducted and to a certain uniformity in the work of the teams. If the operational seminar is to have the hoped-for multiplier effect, it is obviously vital for the procedures and techniques employed to be easy enough to use for participants to be able to put them into practice without major difficulties in their work. This is a basic principle which should always be borne in mind in any training course.

---

1. *El porqué y el comó de la educación funcional para adultos en América Latina.* Crefal, Pátzcuaro, Mexico, 1974, p.112. CREFAL

Chapter IV

Phase two of the educational process: the education and training programme

CHOICE OF TOPICS TO BE COVERED

In an operational seminar, because of the inevitable limitations of time, each team of participants must work according to a somewhat selective plan. We have already seen, à propos of the study of the milieu, how each team is obliged to select only a very limited number of problem situations for its research. It must now choose, from among the problem situations on which field work has been done, one or two topics for the education and training programme. It should be emphasized once again that, in a proper functional literacy programme, all the problem situations amenable to educational action should be taken into account. The final choice of topics is ordinarily made by each team on the basis of the facts at its disposal and in consultation with the technicians of the development scheme. In some operational seminars, teams have formulated criteria to guide them in their choice.

In Haiti, for example, where the development programme concerned coffee growing, one of the teams considered that in order to determine criteria, the problems to be selected as topics for educational action should :

– be regarded as problems by the planters and as amenable to an education and training programme;

– correspond to the priority objectives of development programmes in the field of coffee cultivation;

– be of tropical relevance in relation to the agricultural time-table;

– be susceptible of solution by the planters themselves; and

– enable the team to experiment with a variety of educational methods in order to add to the professional experience of each of its members.

The three topics selected with the agreement of agronomists and technicians were the following :

– rational choice of the varieties of coffee plant and selection of seeds;

– establishment and upkeep of a seed-bed; and

– combating the diseases that affect coffee plants.

It should be noted, as the team pointed out in its report, that these three subjects are interdependent; they are logically connected in the form of chains of problems to be solved and make possible an educational progression in the training of the planters. In fact, these three topics or training components constitute a homogeneous, meaningful whole, in other words a "sequence", for the preparation of the education programme.

THE TARGET GROUPS

It is essential, at this stage of the programme being carried out by the teams of participants, to identifiy exactly those for whom the programme is intended; we shall call them, for want of a more appropriate term, the learners. Where the communities selected as a field for practical work have a literacy training centre or an educational centre in operation or ready to start operations, the technical, occupational and conceptual levels of the adults concerned will already have been established. The data thus gathered indicate not only their knowledge and skills, the gaps and insufficiencies therein and their technical and occupational levels, but also their level of basic education. In such cases, each of the teams possesses the information needed to determine the level at which the educational programme should operate on the basis of the learners' level. In several operational seminars, the teams wished to extend the educational programme to a group larger than that of those attending the literacy training or adult education centre. In the Sudan seminar, one of the teams decided that the programme should not be limited to the adults attending the village literacy training centre, nor even to those whose educational levels had been shown by tests to be badly wanting. The practical subjects chosen for the programme, which were selected on the basis of real problems that were hampering the development activities of the Gezira Scheme, concerned all the farmers, illiterate, semi-literate, literate and alike. The study of the milieu had revealed that even literates did not always possess the knowledge and skills needed, that they used wrong or even harmful farming methods, in other words that,

even with a certain educational background, from the point of view of development requirements they were "functionally illiterate". The team therefore decided to design programmes for all the farmers. Tests for educational levels had revealed the existence of three categories, illiterates, semi-literates and literates. For reasons of a practical nature, the team considered only two categories, the illiterates and the literates. The same programme was developed at both levels. It was decided however that the programme for the literates would not be organized in a formal way, but that they would be free to take part or not as they wished. The team was divided into two sub-groups, the first being responsible for preparing the programme of activities for the literacy training centre, and the second that intended for the literate farmers.

One of the Thailand operational seminar teams adopted a similar approach, putting into practice a single education programme but designed for two different levels, those already attending the literacy training centre and all the farm-workers – men and women – in the community, i.e. all those immediately involved in the problem situations detected during the study of the milieu. As in the Sudan, the farmers were formed into an open group where participation was optional. The objective of the educational activities designed for the farmers was to stimulate them to request from the institutions responsible for agricultural development technical documentation on the questions with which they were concerned and to urge them to use that information with a view to solving some of their problems, in other words to develop a literate type of behaviour. Since most of the farmers were semi-literate, the team prepared reading material at a corresponding level in the form of technical sheets which were read and commented on during the sessions.

During the first operational seminar in Tunisia (1970) one of the teams, after analysing the training needs of the members of the *pré-coopérative*, decided to gear the educational activities to the following three groups : illiterates, semi-literates and the cadres or key personnel of the co-operative. The team had noticed that when an illiterate left the literacy training sessions, he was plunged in an environment where he has no opportunity to use his knowledge. He was sometimes the only one who understood the "reason why", the scientific explanation for certain technical operations. It seemed necessary to provide the learners attending the literacy training centre with surroundings that gave a dynamic quality to their new knowledge. The only way to create a propitious atmosphere was by involving the other members of the co-operative in the educational programme, whether they were semi-literate or literate, as well as the cadres who had attended school to the end of the primary level or beyond. The sequence prepared for the illiterates was to be included in the programme of the literacy training centre. For the semi-literates, the team decided to experiment with a self-training system which would enable them on the one hand to fill in the gaps left by their education, which did not meet the occupational needs of the farmers, and on the other hand to attain to the same technical level as those attending the literacy training centre. The teaching materials prepared for the semi-literates who were to work on their own were self-connecting and graded in order of increasing difficulty, and were made up of question sheets which came with explanatory answer sheets. For the cadres of the co-operative, whose general level of education and vocational qualifications was distinctly higher, the team employed the techniques of programmed education, a prominently self-directed procedure whereby the user may begin the programme at the level that suits him best and correct his mistakes himself. The socio-occupational message addressed to the three categories of learners was identical; it was given a more scientific slant in the programme designed for the cadres but dealt with the same problems. The primary aim was to provide all levels with the knowledge needed by the various groups within the co-operative.

These three examples, taken from the operational seminars in the Sudan, Thailand and Tunisia, seem to reveal a fact that is all too often overlooked, namely that literacy training – whether functional or not – is not simply a matter of individuals who are learning to read, write or do written arithmetic; it is a matter which affects the social milieu in the full sense of the term – the knowledge, skills, and patterns of behaviour of the social group as a whole. If the milieu is pre-literate, literacy training is in great danger of falling on stony ground and being cancelled out by the behaviour patterns of the majority of the members of the social group, and the new literates will quite likely soon relapse into illiteracy. A literacy training programme must therefore be directed both at the illiterate individuals in a literacy training centre and at the community as a whole. But how can this problem be solved ? During the national operational seminar in Haiti, one of the participating teams carried out the following experiment. Each session held at the literacy training centre included the reading of technical notes on coffee growing practices which summed up the information that had been discussed during the session. But this individual reading sheet had a twofold object : while it was intended to enable each of the learners to practise his reading at home, it was also intended for the community. In a way, it formed a bridge between the literacy training centre and the community. Learners were invited to read the text of the sheet not only to members of their family, but also to three neighbour planters. Thus the reading sheet served to disseminate new knowledge – actually the solutions to problems detected during the study of the milieu – throughout the community and to motivate the whole of the adult population with respect to the activities of the literacy training centre. Evaluation showed that this experiment had aroused great interest among the inhabitants of the region.

38

BUILDING UP A PICTURE OF THE INSTRUCTOR

In all functional literacy or functional adult education programmes, there is one extremely important variable which conditions the way in which the programme is put into operation, and that is the instructor, his real level of skill as a teacher and the degree of independence of which he is capable. A team may work out a programme which it considers excellent, foresee the methods that it considers most appropriate and produce teaching materials it considers satisfactory, but they will be of value only in so far as the instructor is capable of using them properly. The participants in the first operational seminar in Tunisia (1970) devoted a working session to the critical question of instructor training. They concluded that an instructor should :

– be throughly familiar with the milieu and be really part of it;

– be capable of easily relating teaching practices to the pursuit of technical objectives;

– show himself sufficiently independent to link teaching and technical objectives in accordance with the characteristics of the milieu in which he is working, which presupposes a certain basic level of general knowledge.

The authors of the report of the Tunisian seminar admit that these qualities are only rarely found among those usually recrited for functional literacy programmes. These therefore are ideal, theoretical, requirements, quite different from the acutal situation in the field with which the participants were confronted during the various operational seminars. Experience showed that the teams sometimes came into contact, in the course of a seminar, with instructors of widely differing qualifications, ranging from the veteran school teacher with a sound educational training, to the villager full of goodwill but unable to solve simple written arithmetic problems, though some of his pupils could do so without difficulty. These are the real conditions in the field and participants in an operational seminar are working with reality. The educational programme must therefore be adjusted to the level of general knowledge of the instructors, the level of their training as teachers, their technical and occupational level in the case of economic development enterprises, and their level of information regarding population activities in the case of population programmes. In order to plan educational and training activities within the instructor's range, it is essential that each team should form a concrete idea of requirements for such instructors. The team can thus determine what kind of training they should have, taking into account their gaps and educational needs, and prepare the teaching instruments necessary to guide them in their work at the literacy training centre. In point of fact, for want of time, this training is in many cases limited to a few briefing sessions.

In order to determine the characteristics of the instructors, the teams usually combine interviews with those concerned and observation of one or more literacy training sessions.

The participants in the first operational seminar in Tunisia drew up a typology of instructors according to their socio-occupational origin and deduced the main points to be stressed in training. This typology distinguishes three types of instructor :

– those who belong to the same socio-occupational milieu as the learners; in rural areas they are farmers or farmer-teachers – i.e. teachers who continue to work the land when they are not teaching – and agricultural extension workers;

– those who come from outside this socio-occupational milieu, but who are doing a non-military national service;

– teachers, who are still the principal source recruitment for literacy training and adult education[1].

We find representatives of these three categories in one operational seminar or another. In one the *pré-coopératives* in Tunisia, during the first seminar organized in that country, one of instructors was a farm foreman with a primary school certificate. He had been given one week's training as an instructor after his recruitment and received in-service training two days a month. Since he was a co-operative member himself, he was fully abreast of production and management problems. While he was eager to work as an instructor, he needed help in order to put his knowledge and skills into shape and intellectualize them. The team concluded that teaching sheets with a strong accent on self-directed training should be prepared for him.

In one of the villages in Pakistan, the instructor was not familiar with the socio-occupational milieu of his students, but he took a very active part in community life. He belonged to a non-military national service corps known has "Sipah-i Khidmat", literally the education and welfare services corps. He had a university degree in physics and mathematics, and had acquired the rudiments of modern agricultural techniques from publications put out by the agricultural extension service. His training in adult education had lasted only two months and was entirely theoretical. For his work in the village, he received a monthly salary equivalent to US $ 20. His literacy teaching activities were limited to elementary reading, without any work in writing or arithmetic. The instructor's only teaching aid was a flip-chart from which the adults learned to spell out isolated words that had no relation to their daily lives. The meaning of the illustrations intended to facilitate identification of the written words was not even grasped by the students, as tests of visual perception showed. In this case, as in others, it was difficult to distinguish between the instructor's lack of teacher training and the deficiencies in the literacy instruction system as it was applied before the reform – of which the operational seminar constituted precisely one of the initial stages.

Most of the literacy programmes which have been used as a basis for the educational activities of an operational

1. See *Practical Guide to Functional Literacy*, Unesco, Paris, 1972, p.164; and *The Training of Functional Literacy Personnel - A practical guide*, Unesco, Paris, 1973, p.83.

39

seminar have employed the services of teachers. The teacher-learner situation in the literacy centres has in the main been reminiscent of the traditional classroom with their blackboards and benches. More often than not the behaviour of the instructors has resembled that of a school teacher rather than that of the leading member of a group : the teacher-learner relationship has been almost exclusively one-way and very little group interaction has been evident. Functional literacy work requires a teacher who realizes that his rôle is not to take the centre of the stage, but to provide motivation and encouragement for the learner and to know when the time has come to take a back seat.

One of the many and varied problems which beset the launching of a functional literacy programme is the fact that very few of the instructors belonging to the teaching profession possess the necessary specialized knowledge of the programme content. One of the instructors in Haiti taught in a local primary school and also owned a coffee plantation which he worked in his spare time, but the test on coffee-growing showed that on many points he was as ignorant and prejudiced as the other planters. Of course the purpose of establishing the characteristics required of instructors in the context of an operational seminar is not to draw general conclusions on the basis of one or two examples, but rather to encourage a critical approach to the main features of the training of literacy workers. Whether the programme calls for instructors form the same socio-occupational background as the learners or for professional teachers, they must receive some training for the work they are to undertake. Each team must be responsible for making, on the basis of its own observations, the necessary materials – teaching notes, technical notes – which will provide the literacy worker with step-by-step guidance as he puts into practice those educational methods judged by the team to be best suited to the situation.

In the absence of a literacy centre or other educational establishment for working adults, it has been necessary for most of the operational seminars organized by CREFAL to recruit instructors specially. While traditional selection procedures need to be abandoned completely, experience in various Latin-America countries indicates that adults find it easier to accept as instructor a "natural leader" who comes from their own social background and faces the same problems and shares the preoccupations of other members of the community and who has a comparable or superior cultural level. The CREFAL experts have worked out a way of identifying such individuals, using the now well-established method of the sociogram which makes it possible to ascertain to what extent the future users of a literacy centre consider a certain member of the community to possess sufficient edge to make him acceptable as an instructor. During the operational seminar in Honduras (co-operatives in the Las Ganchias area), each team drew up a questionnaire consisting of five questions, each of which related to a different criterion : five members of the co-operative had to be named in order of preference in accordance with each criterion. The five following questions were :

1. Name, in order of preference, the five members of the co-operative who are most concerned for its successful functioning.
2. Name, in order of preference, the five people who take most interest in the training of the members of the co-operative.
3. Which local people could be made responsible for teaching others something which would improve the community's living conditions ?
4. When you need advice about your crops, which farmers do you turn to ? (Name five people in order of preference). .
5. When you run into difficulties in the co-operative, which members of the co-operative do you turn to ? (Name five people in order of preference).

Each question was followed by suplementary questions on the reasons for the respondent's choice and on the nature of the relationship between the "favourites" and the other members of the co-operative. A sample of eight members of the co-operative was asked on an individual basis to fill in the questionnaire. The five people whose names were cited most frequently were shortlisted as possible candidates for the post of instructor. The final selection was made after an interview and on the basis of intellectual level, desire to take part in the project and professional qualifications.

THE CHOICE OF METHODS

Each of the teams of participants has now reached the crucial stage of the operational seminar, which consists of drawing up an education and training programme on the basis of the data collected during the study of the milieu. Referring back to problems it has identified, each team defines various topics in accordance with the criteria which it has established for identifying priorities. These topics in fact constitute the framework of a basic "progression". What needs to be done next is to define the objectives and the content of the education and training programme. But the desired aim will not be achieved unless objectives, guiding principles, programmes and educational methods are all in harmony. There must be a logical relationship between all these different constituent parts.

In Haiti one of the teams started with a detailed study of the problem chosen as the first topic to be covered. This was the lack of technical knowledge and know-how regarding the choice of varieties of coffee and the selection of seeds. The team's agronomist, assisted by the relevant specialist services, drew up technical notes on this topic which enabled members of the team to re-state the problem of the choice of coffee varieties and seed selection in concrete and specific terms. In the light of this re-statement of the problem the team then defined the objectives of the education and training programme, i.e. it translated the problem on which it had

concentrated its attention into educational and training objectives. It did not formulate these objectives in terms of what the instructor should teach, but in terms of what the adults would have to learn in order to understand the problem and find a practical solution to it. The content of the session was determined on the one hand by the technical roles and on the other by the planter's technical and occupational level, and represented the knowledge and skills which they should acquire in order to achieve the objectives of the session. The choice of methods – the means chosen to transfer this know-how – was made in the light of the material to be communicated. The team employed three types of communication:

– oral communication (dialogue between the instructor and the learner; interaction between the learners);

– visual communication (wall-charts; practical demonstrations);

– written communication (reading and writing exercises; arithmetic cards).

The exercises in reading, writing and arithmetic were to be related to the progress of the session. Reading would be used when this was the easiest way of understanding a problem, and writing in order to record some useful item of information. The introduction to written arithmetic was to be linked to the problem to be solved. Reading, writing and arithmetic were to be the delivery systems for new or useful knowledge; any word, sentence or arithmetical exercise which contributed no practical information was to be eliminated. Priority was to given to situations actually experienced by the group. The teaching aids included material intended for the instructor: the technical notes which would give him the necessary technical information and the teaching notes which guide him on a step-by-step basis in the conduct of the session; visual aids; demonstration material. There was also material for the learner: the reading sheets, a condensed version of the technical notes, adapted to the average reading ability of the learners. As the objective of the educational programme was to try out educational approaches and a certain educational method, the team prepared what it considered to be the most suitable instruments of evaluation for determining, after each session, to what extent it had achieved its objectives. These included a test on the basic concepts introduced during the session which was administered to each of the learners on an individual basis both before and after the session, thus making it possible to measure how much they had gained from the session. For further evaluation of the extent to which the learning process had achieved its object, the team drew up a check-list of points to be watched for during the session.

The approach adopted by one of the teams at the operational seminar in Haiti recurs, with the variations required by the adjustment of the educational programme to the context, in several reports. In Tunisia, within the framework of a programme on population questions, the first action of one of the teams was to define the method which should be used to implement the educational programme. It opted for the so-called "problem-solving" method. The study of the milieu had revealed a high level of receptivity to, indeed of acceptance of, the national family planning programme. The problem was the gap between acceptance of the idea in theory and the adoption in practice of the measures advocated. There was in fact some resistance to their adoption, which seemed to be rooted in the villagers' ignorance of certain facts and phenomena which they were at a loss to explain, whence their apprehensions and their willingness to lend credence to certain rumours and to share certain prejudices of religious origin. The main object of the programme could therefore be stated as follows: to provide the villagers with valid answers to their queries regarding family planning, and to explain the how and the wherefore of the methods advocated by the national programme, without interfering with its medical or public health side. The method to be followed was defined by the team in terms of the main objective of the education programme – to enable each man and each women in the community to obtain the information which would make it possible for each to make up his or her own mind on the question of family planning in full knowledge of the factors involved. As in Haiti, the team took into consideration three ways of transmitting the required knowledge – oral communication, visual communication and communication in writing or in print – the aim being to use all three modes of communication in each education activity.

Oral communication was found to involve three kinds of relationship:

a) the instructor-learner relationship, providing the latter with new information and then checking on the process of understanding and acquisition (feed-back);

b) the learner-instructor relationship, enabling the learner to obtain the additional explanations which they require;

c) the learner-learner relationship, which means the individual interactions within the group, of crucial importance when the aim is to modify opinions or attitudes.

Visual communication is used on the one hand to reinforce oral explanations and on the other as an introduction to the deciphering of the graphic concentions used to represent reality.

The written or printed word is used to make good the deficiencies of oral communication, making it possible to avoid the phenomena whereby the subject matter of all oral communication, whether it be in the form of a lecture, a conversation, a discussion or a radio broadcast, tends to be forgotten, distorted or even completely changed in recollection.

Having thus outlined the methodology to be used, the team began to prepare the educational programme and the teaching aids necessary for its implementation.

The definition in operational seminars of ways and means of drawing up a "made-to-measure" education and training programme is in general the result of both individual and group analysis and reflexion after contact with the environment. It is not based on principles laid

down in advance. The guiding principles are established in and through work in the field, as is illustrated by an extract from a report of one of the teams of an operational seminar held in the Sudan :

"In the course of its discussions and preparation of education programmes and teaching material, the team reached agreement on a number of guiding principles which, in the opinion of its members, deserved special attention."

"As the team had adopted the "problem-solving" approach, the first basic principle to be taken into consideration was the principle of convergence. The problem situations selected by the team, starting with family participation in cotton-picking, needed to be studied from all angles, cultural, psychological, social, economic, technical, and scientific. But all these data had to be presented as focussing on one major objective : to help the learner to understand the problem and encourage him to find its solution. The message which is transmitted thanks to acquisition of the skills of reading, writing and arithmetic should convey useful information applicable to an understanding of the problem and to its solution. The second principle to be followed, the principle of integration, was derived from the first. All the activities undertaken as part of the educational programme, whether in the literacy centre (exercises in reading, writing and arithmetic, group discussions) or through demonstrations in the cotton-fields, should be organized within the framework of the same "unit of instruction". The principle of integration thus ruled out the division of the training programme into separate "subjects", as is the practice in traditional literacy work. Functional literacy requires a unified approach in which, rather than obeying the dictates of a traditional timetable (20 minutes for reading, 20 minutes for writing and 15 minutes for arithmetic), attention is concentrated on the nature of the problem and on its solution. It was with these guiding principles in mind that the team members formulated programmes of educational activity for the literate and illiterate groups in the village of Kareiba.

THE METHODOLOGY OF THE EDUCATION PROGRAMME

We use the term "method" in its etymological sense to refer to the way chosen by the teams of participants to reach the goal which they have set for themselves in the context of a particular situation, the situation being the problem chosen as the topic to be covered and the goal being the acquisition by the group concerned of knowledge and skills which they can use in their environment and of attitudes which will assist in the solution of the problem. The educational methods used to achieve this aim will provide, depending on the situation, the means of deciphering the written or printed message, of solving simple arithmetical problems arising in everyday life at work and in the home, and of acquiring the skills and tricks of the trade necessary for the adoption of the new techniques proposed, and will encourage the learners to think about the difficulties and problems arising at work or in the home, to face them, to seek their causes and themselves to suggest solutions which it is within their power to apply. The educational programme must suit its methods to the situation : literacy training activities, demonstrations, group discussions, self-teaching methods, the projection of films or slides, reading material, puppet shows, etc. The instructor will use teaching

Outdoor demonstration (Mexico, 1970)

aids, instruments or material which will enable him to apply the methods he has chosen, the wherewithal needed to conduct a literacy session, or a group discussion, to illustrate a problem situation, for practical demonstration in the fields or for programmed instruction.

The fifty or so operational seminars organized from 1970 to the end of 1974 were extraordinarily wide-ranging in their choice of teaching methods and aids, this being due to the great diversity of the situations and problems encountered by the teams of participants in their operational contexts. But despite this diversity of methods and tools, the methodological approaches adopted in most of the seminars are broadly similar in conception and application, although there are a number of variations on the basic theme. The reason for this similarity is that the majority of the teams adopted a problem centred approach. In fact the approach adopted in almost all the education and training sessions was as follows :

1. Presentation of the problem in the field or indoors by means of a wall-chart, or in some other form, such as, for example, a puppet play. This provides the motivation. If it takes the form of a fact-finding expedition in the field, presentation of the problem is usually accompanied by a practical demonstration showing how the problem can in fact be solved.

2. Guided group discussion of the problem in the course of which the participants, after analysing the problem, are encouraged to suggest their own solution or solutions to the problem. The discussion is then summed up in a key sentence which clearly sets forth the position adopted by the group and can be used as a basis for conceptualization exercices.

3. A "conceptualization session", based on the key sentence and leading up to reading, writing and written arithmetic exercises related to the topic for the day. The process of learning to write is normally synchronized with that of learning to read.

In operational seminars where the literacy centre students have already acquired certain basic skills, or where groups of people who are already literate are being taught, the item 3 activities are integrated into the group discussion session itself.

METHODS USED

Practical demonstrations

The "field", in the context of an agricultural development enterprise, constitutes both an ideal place for teaching and a powerful motivating factor. The purpose of a practical demonstration is to show how certain work or a certain operation is performed and the reason for that work or operation. Demonstration is teaching by example, by actual practice. It can consist of showing someone how to improve on the way he does something or of showing him something new to do. For practical demonstration to be effective, those present must be able to see, hear, understand and practise for themselves

Indoor demonstration (Haiti, 1974)

in order to master the new procedure. During the first operational seminar organized by CREFAL in one of the Indian communities of the Patzcuaro region, the farmers had complained of damage being caused to their maize fields by the "tuza", a kind of giant mole. This problem was utilized as one of the topics for an educational activity. A practical demonstration was given, first of all, of the method of preparing the poison for getting rid of the moles and of the precautions to be taken after handling to toxic substances. This demonstration was given in the evening to a large number of farmers. On the following day the team, together with some of the farmers, went into the mole-affected maize fields and carried out a practical demonstration of the method of putting down the poison. The same evening, at the literacy centre, the team organized a group discussion session which, in fact, led up to a mathematical exercise to compare the cost of combating the moles with the losses they caused. In the Sudan, as part of the Gezira Scheme, one team gave a field demonstration of the correct method of picking cotton, adding explanations as necessary. The discussion which began in the field was taken up again that evening at the literacy centre. The final evaluation showed that 12 farmers out of 13 among the audience knew how to pick cotton correctly whereas, during an initial test, only 10 farmers out of 25 had mentioned the correct method.

Practical demonstrations can also be carried out in the classroom. In Thailand an instructor demonstrated how to operate an atomizer to destroy insects which attack rice. A similar demonstration was carried out in Haiti.

Wall charts illustrating problems

Wall charts may be used to provide a graphic representation of a situation and to reveal a problem, and also as a stage in the introduction to a form of abstract expression, to graphic symbolism. By means of this conventional representation of reality, the learners discover what the current problem is. This procedure has been used in many operational seminars. In one Indonesian village, the team devised two wall charts, one showing a couple with a large number of children and the other a couple with the "ideal" number. The charts were to be used in conjunction with discussions, each reinforcing the other. Allowance must be made when using wall-charts for limitations in the subjects' powers of visual perception. In Indonesia, the couple with the "ideal" number of children was supposed to be a happy couple. The artist had depicted a broad smile on the faces of the husband and wife. This facial expression, however, was not understood by the learners. In the first Tunisian operational centre (1970), the charts carried detachable key sentences which did not appear until the end of the group discussion session, i.e. at the transition point between the discussion and the reading exercise, the key words being taken from the key sentences.

Puppet shows

A team in Tunisia, in order to make their audience, a group of married women, aware of the advantages of family planning, used a puppet show. Puppets, as an impersonal means of communication, have greater freedom of expression than a teacher, who must always show reserve and discretion, especially in an area as delicate as that of family planning. The show called for many long hours of preparation in constructing the puppets, making their clothes, writing the script and recording it (in the local Arabic dialect) on tape. The story they presented showed the tribulations of a couple who have had seven children in quick succession and find it more and more difficult to make ends meet. The moral of the story was stated by the puppets themselves : it would have been better to plan the family.

One of the operational seminar teams in Indonesia used "wayang golek" puppets, the traditional shadow-theatre dear to the hearts of the villagers of Java. The sketch, which was adapted from a local folk theme, contained ideas dealing with family planning and agricultural modernization. After the performance, the audience was divided into three groups, each of which was asked to draw the moral of the story. Their conclusions, which were written up on the blackboard by the teacher, were used as a basis for reading and writing exercises. The puppet show also served to present simple arithmetical problems for the audience to solve, working in small groups.

Group discussion sessions

Following a field demonstration or other teaching method, the learners debate the current problem in a group discussion session under the instructor's guidance. Unlike teaching sessions, where a one-way relationship from instructor to learner predominates, the group discussion

Puppet play (Tunisia, 1973)

puts the emphasis on an exchange of ideas between all the learners, on interaction at group level. More than a hundred years ago, sociologists showed the psychological value of discussion in "breaking the bonds of immutable custom". The aim of a group discussion is not so much to provide the participants with new knowledge as to encourage them, by a kind of mental training, to formulate more clearly their aspirations and their hopes, to think about their problems and to suggest solutions to difficulties in their work and in their family lives.

The process is one of group dynamics leading up to a collective decision concerning changes that are feasible as well as being desirable. The instructor/discussion-leader is primarily a catalyst, his rôle being to provoke audience reaction by means of questions and to help them to bring the threads together. In the context of a literacy project, a group discussion usually culminates in the formulation of the key sentence for the day, corresponding to the problem situation which forms the topic for the day and containing a new word as its most important element. It is not an easy method to use and the instructor has to be properly trained for it. He has to organize and supervise the discussion, remaining at all times in the background while nevertheless guiding his audience towards a predetermined goal. The instructor too often has a tendency to teach, in the traditional sense of the term, and very often it is expected of him by the group, who listen in silence instead of joining in. In order to overcome this difficulty, some teams, instead of organizing a discussion on the standard pattern, with the leader and the whole group together, divided the group into several sub-groups, which were then asked

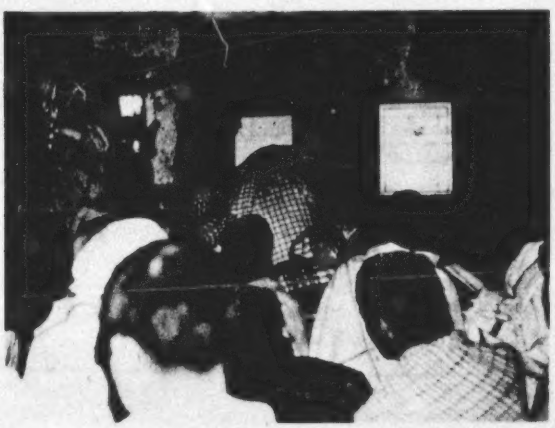
to discuss the topic for the day and to formulate their conclusions either orally or in writing. The sub-groups' reports were then used as the basis for a brief general discussion. The instructor/leader's rôle in that case was to present the objectives of the session, to be at the disposal of the sub-groups in order to give them any information they might need and to sum up their various conclusions. This method has the advantage of allowing wider participation in the discussions.

The "literacy training session"

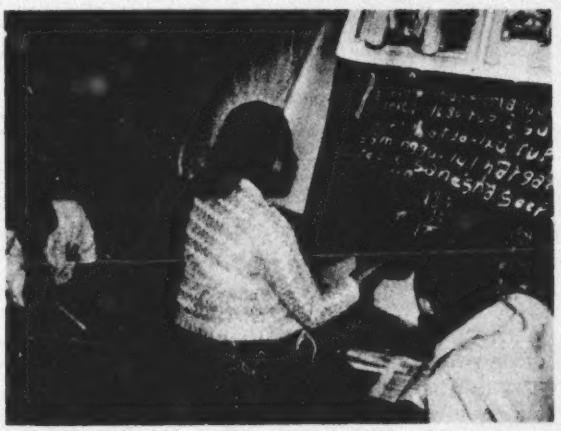
Under this heading we will confine ourselves to a brief description, by way of illustration, of the process whereby the basic writing and arithmetical skills are acquired, as it has been applied in many operational seminars.

The starting point is the key sentence, formulated during the group discussion and written up on the blackboard or built up from movable letters on the felt-board. This key sentence, which carries a message relating to the problem of the day, contains a key word which is always significant and itself contains the new phonetic element, the new symbol that the students must learn to recognize and reproduce. From the start, then, the reading exercise is used to convey a meaningful message. This key word containing the new element is written up on the blackboard or spelt out on the felt-board, first by the instructor and then by the students. If a student makes a mistake he is corrected by the other students. The instructor goes on to other exercises such as finding other terms containing the new element or composing short sentences with the help of words previously studied. The teaching of writing is closely linked with that of reading. The two are constantly alternated so that they progress in parallel. The session continues with the deciphering of a text relating to the problem of the day and containing only phonetic elements which have been learnt during previous sessions. Situations familiar to the students and connected with the problem in hand are used to introduce them to the writing of numbers and arithmetic. In the Tunisian operational seminar, which dealt with family planning, the audience consisted of married women, most of whom already had a large number of children (36 per cent of them had more than six children). First of all, the instructress asked each of the women how many children she had, writing up the answers on the board as she received them, and then proceeded to arrange them into a system. In order to teach addition and subtraction, the instructress again drew on a situation familiar to the audience : how many boys and how many girls were there ? How many children in all ? How many girls ? Therefore, how many boys ? In this way the listeners were introduced for the first time to the conception of addition and subtraction before being introduced, at a later session, to the mechanics of these operations. In the first Tunisian operational seminar (1970), which was held for the benefit of members of a *pré-coopérative*, the arithmetic exercise was related to a situation they had actually experienced in the field : measuring quantities of "cuproson" (a toxic mixture) for treating vines. The farmers therefore needed an understanding of the idea of proportion and of the meaning and mechanics of multiplication. The exercise consisted of : the writing of the numbers 100 (litres of water) and 400 (grammes of the product); an introduction to the meaning and mechanics of multiplication on the basis of addition, which was already known and understood; the use of scales and weights. These two examples show how mathematics can be integrated into a problem situation already experienced by the student. This is what is called in functional literacy training the "mathematization" of situations. The student's initiation into the art of mathematical reasoning progresses through the series of problems to be solved and is thus fitted into the context of the development programme. In a number of operational seminars, especially where the audience had already reached a certain level in the literacy process, the learning of reading, writing and arithmetic were

Literacy activities (Pakistan, 1974)



Describing the situation mathematically (Indonesia, 1973)



45

made part of the group discussion session, being introduced in answer to the various questions raised during the discussion. This helped the listeners to realize the practical utility of these subjects.

Self-teaching methods

In some operational seminars education and training were given not only to illiterates but also to certain categories of people who had shown during tests that they were either semi-literate or even literate, but who did not have the knowledge or skills required by the development programme. It was for these people that programmes were devised using self-teaching methods such as programmed instruction or self-correcting cards, which allow an adult to work on his own, at his own pace. Self-teaching methods have many advantages. According to the report of the first Tunisian operational seminar (1970), these advantages are :

– practical : there is no longer any need for an instructor;

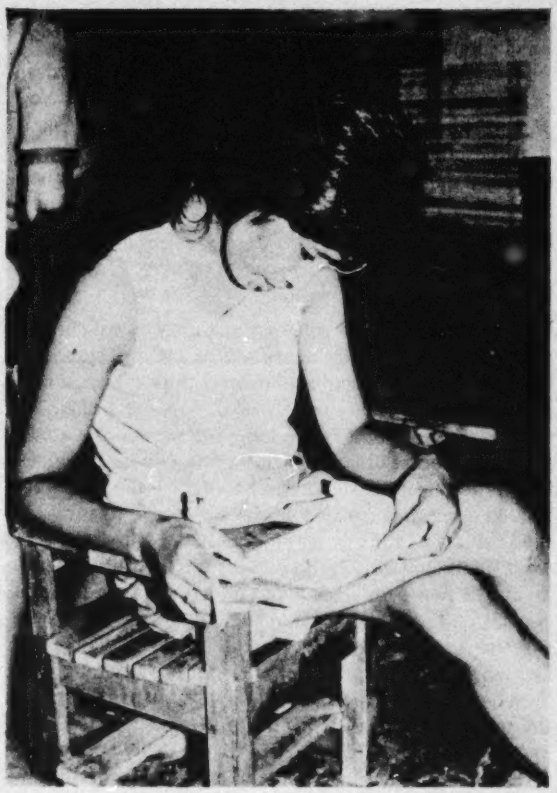
– psychological : it is a boost to an adult's ego to feel that he his in control of his own training;

– educational : if properly designed, these techniques can be extremely efficient.

Self-teaching techniques are based on self-correction. The user is fully aware of his responsibilities because he alone checks the knowledge acquired. A mistake that is detected and put right as soon as it is made becomes a learning point. The programmed instruction method was used in the 1970 operational seminar in Tunisia, in Indonesia and in the Philippines, the last, incidentally, being devoted to post-literacy training. In Tunisia the techniques was used for training key personnel. The team prepared a programmed textbook, the subject of the sequence, a "treatment of citrus fruits", being the same as that of the programme intended for illiterates. Out of the various types of programmed progressions, the team deliberately chose a Skinnerian or linear programme because it was the simplest. It takes the following form :

Frame plus question
↓
Constructed response (to be written in the space provided)
↓
Correct answer
↓
Next frame

The programmed textbook was tried out on a group of key personnel ranging from semi-literate to certificate of primary education level. The results showed that the semi-literates had difficulty in following the programme. The method could be used only by those who had a good command of reading and writing. The results obtained during the operational seminar held in the Philippines led to similar conclusions. People with at least five years' schooling had no difficulty in completing the exercise successfully, whereas those with four years' schooling or less ran into all sorts of problems, not least of which was failure to understand the instructions to be followed.



Programmed instruction exercise (Philippines, 1974)

EDUCATIONAL MATERIALS

It is necessary to make a distinction between material intended for the instructor and material intended for the learners, whether illiterate, semi-literate or literate. The material is designed in relation to the methodological approach adopted by each of the teams for the dissemination of the content of the programmes and also in relation to the instructor's qualifications.

In most operational seminars, the materials designed for the instructor include technical and teaching notes as well as teaching aids related to the subject of the sequence to be dealt with during the seminar. For the learners, the material varies according to the point they have reached in the literacy training process. It includes reading and writing sheets, arithmetic cards, reading

texts, illustrated booklets, sets of self-correcting cards and programmed books.

The reading matter prepared in operational seminars is generally no different from the material normally used in literacy training or adult education programmes, except as regards the content. Text and illustrations – pictures to be read – have a functional relationship to the problem being studied. Learning to read is not limited to the acquisition of the basic skills but also favours the acquisition of knowledge that will be useful and usable in the learner's working and family life.

The instructor's material, however, differs in form and content from that found in conventional literacy training programmes. A brief description of it follows.

Technical notes

Technical notes are designed to inform the instructor about the subject that he will have to discuss with his learners and present in clear and concise fashion the technical information needed to enable him to organize the discussions on the subject of the day and to reply to any questions that may be asked. The formulation of the content should be adapted to the instructor's level. The technical notes are prepared by technicians with the assistance of the educators on the team, who often have only a slight knowledge of technical matters related to agriculture, health or family planning.

The technical notes are usually in the form of sheets of normal size. Each sheet may later be used as an additional reading text when the learners at a literacy training centre have reached a sufficiently high reading level.

Preparing teaching material (Thailand, 1973)

The Sudan seminar adopted a different layont. The sheet on cotton picking takes the form of a technical guide with four headings. Under the first heading are listed the (generally wrong or mistaken) methods used by the farmers, under the second heading, the reasons given by the farmers to justify these practices, or what might be called their logic, under the third, the correct ways of proceeding, and under the fourth, the technical or scientific explanation for each of the operations recommended. Notes of this type have the advantage of providing the instructor with a precise representation of the problem with which he will be dealing, based on the knowledge and skills of his learners, together with logical arguments to encourage them to change their harmful practices.

Teaching notes

These are based on the technical notes and are a sort of blue-print to guide the instructor step by step in the transmission of the content of the education and training programme. They show in outline how the session should be organized – the practical demonstration, the group discussion, literacy instruction – the material to be used, and the work to be accomplished. It is an aid for both the instructor and his learners. In addition to a statement of the problem of the day, it includes the specific objectives of the session, the methods to be employed and the list of teaching aids needed, plus information set out in three columns on the work to be done by the instructor, the activities of the learners and the use of teaching aids as the session progresses. Teaching notes may however, take many forms.

Teaching aids

In most operational seminars, these are visual aids made by members of the teams using materials locally available and include wall-charts, illustrations, pictures, flash-cards and felt boards or flannelgraphs, a particularly handy and effective aid which is undeniably appealing to learners. In Tunisia (1970), the learners at a literacy training centre made spontaneous use of the small figures that went with the felt board in order to explain their point of view (the problem was to discover how ophids attack orange trees).

TRAINING OF INSTRUCTORS

A literacy training or education programme linked to development can only be successful if it is properly applied at the basic level, i.e. by the instructors. The teams have established the components of their action programme, determined the sequence and content of the teaching programme and prepared the teaching instruments adapted to the method selected. The time has now come to train the instructors to apply a programme which differs in its conception, content and form from conventional programmes. The time-table for the activities of

an operational seminar normally provides for five or six briefing sessions for instructors. The question is whether the method adopted by each of the teams will be applicable by the instructors. Is it suitable to their level? Does it actually take into account the level of competence, both teaching and technical, of the instructor? In a number of operational seminars the teams tried to solve the question of the training of instructors by including them from the outset in the various programme activities in order to familiarize them with the concept of functional literacy training and its operating methods. It is not always possible, however, for instructors, whether professional teachers or villagers, to take part in the preparation of the education activities because of their work. In the Sudan, one of the teams organized a proper training course for instructors. The programme included the study of the priority objectives of the Gezira Scheme, an analysis of the principal data gathered by the team during its study of the milieu, some notions of adult psychology, adult education methods, literacy training techniques and the use of teaching aids. In order to introduce the instructors to the techniques of the practical demonstration, the team called in the agricultural extension agent for the district. Participants in the operational seminar in Sevilla, Colombia, used a similar approach. The instructor training session, organized by one of the teams, included the following subjects: study of the technical notes (yucca cultivation and agricultural credit); use of teaching notes and the individual cards designed for learners; introduction to the techniques of group leadership. The session took the form of a dialogue between members of the team and the instructors. The constant exchange of views made this session extremely instructive for the team. Invited to comment on the teaching material, the instructors made highly constructive criticisms of the graphic material which did not seem to them to fit in with the realities of the local environment. The very sound comments made by these instructors – who were not professional teachers but local farmers – also made it possible to revise the individual cards. In other operational seminars, as in Indonesia, Togo or Haiti, the briefing – or advanced training in the case of teachers – stressed training in context. Rather than lecture-type sessions, priority was given to practical activities such as demonstrations, simulation exercises and practice sessions led by the instructors. It was through practice, either in a simulated situation or a real one, that the instructors learned to use teaching notes and teaching materials, to lead a group discussion and to organize a demonstration. The experiment confirmed the fact that "experience" is still the best method of training and that all too often the distinction between information and training has not been understood. People forget what they have heard, forget what they have read, even forget what they have seen, but rarely forget things they have done. Of course in any training session, dialogue is an essential feedback factor which enables the team to achieve a better adaptation of the educational programme to the requirements of the milieu. In Haiti, after a demonstration by the team on how a literacy training session should proceed, the instructors were invited to express their views. Their often relevant and judicious comments were concerned with what the team had done during the demonstration and how they had done it, and not with what had been said. This then implicitly confirms the advantages of practical activities over theoretical lectures.

In many operational seminars, in order to help the instructors over their initial difficulties and uncertainties, the teams themselves take the first, and sometimes even the second, literacy training session. In Togo, where the instructor was a villager who had himself just completed his literacy training, the method adopted by the team was as follows:

– first session: taken entirely by a member of the team by way of demonstration;

– second session: first half taken by a member of the team and second half taken by the instructor;

– third session: taken entirely by the instructor.

TRYING OUT THE EDUCATION PROGRAMME

To try something out implies evaluating it. In an operational seminar, which is no more than an exercise and cannot be treated as a full literacy training programme with the requirements such a programme implies, experimentation is limited to the teaching methods and materials used. It could be described, in fact, as a monitoring exercise whose value, in view of the conditions in which an operational seminar is carried out, resides in the pointers it provides rather than in its direct effects. This being the case, a two-week try-out period cannot lay claim to absolute precision in its results. It should be emphasized yet again that the purpose of an operational seminar is not so much to produce scientifically valid data as to demonstrate how one or more functional methods can be used in a specific situation in a given environment. The object of the exercise is to evaluate a) to what extent the teaching methods and material have proved to be suitable and effective vehicles for putting across the content of the programme; b) how far the instructor has mastered the teaching method; c) how suitable the educational approach is to the needs and psychology of illiterate adults, or those with a low level of education.

In the first Tunisian operational seminar (1970), only one team of the three taking part had the opportunity to carry out an evaluation exercise. The exercise was designed to ascertain whether the teaching material devised by the team was suited to the needs of the people concerned. With no initial test to rely on for purposes of comparison, it was not possible to determine the degree of acquisition of new knowledge. Only the use of the programmed textbook lent itself to both qualitative analysis of the value of the method and quantitative evaluation of the knowledge acquired by its use.

In the Sudan, a team carried out an evaluation of the

various teaching methods by means of questionnaires, tests and observational check-lists. Three aspects were evaluated : level of technical and occupational knowledge, attitudes to manual labour and opinions on the functional literacy sessions. The evaluation also included a test on word recognition, reading aloud and silent reading, writing and numeration. Details of the tests given to the adults attending the literacy centre were made available to the team so that they could measure the knowledge acquired as a result of the lessons. A very significant gain was seen in technical and occupational knowledge. Also very satisfactory were the scores obtained in the various tests monitoring the literacy teaching process. In their report, however, the team members themselves stressed the only relative validity of the results of these tests, the value of the exercise lying primarily in the methods of experimentation. A fact nevertheless worthy of note is the very favourable attitude – which was more than merely a show of politness by these very courteous people – to the functional approach. Eleven of the 13 participants stated that they preferred the material produced by the team to their usual primer ("Key to knowledge") because the team's material dealt with questions related to their work, particularly the growing of cotton and corn.

In the Indonesian operational seminar, one of the teams devised slightly different means of evaluation : a "before" test, an observational check-list and an "after" test.

The object of the initial test was to measure, before the first session, the level of knowledge and of understanding of the main elements in the educational programme and also to gauge the learners' attitudes to teaching methods and systems. This test was of the "paper and pencil" type in which the subject gives a written answer : the team members had previously satisfied themselves that the use of this type of test was possible, since the adults attending the two literacy centres assigned to the team were semi-literate.

In order to minimize the effect of chance, the test contained five multiple-choice questions. The results obtained showed that, on questions concerning population, the level of knowledge and comprehension was relatively poor. Barely 30 per cent of those tested, in point of fact, gave the right answers.

When asked about the methods used in the literacy centres, which were still very traditional, the participants said they thought the formal lesson by the instructor and the system of questions and answers was the most suitable method of learning.

The team also devised a check-list for assessing instructor performance, methods used, learner reaction and teaching material. Each item was assessed on a numerical scale which had been worked out beforehand. This check-list was given to each member of the team, who was asked to make a continuous assessment of the planned series of four sessions in each of the two literacy centres.

Reproduced below, by way of illustration, are the results for the four sessions in one of the literacy centres, the maximum score for each item being 100 :

Session	Instructor	Method	Learners	Teaching material	Average
1st	95.2	95.2	90.3	88.2	92.2
2nd	77.6	74.4	78.4	72.0	75.6
3rd	79.6	79.4	79.4	77.5	79.0
4th	85.6	85.6	80.5	82.5	83.6

The high score for the first session is due to the fact that it was conducted by a member of the team, a highly proficient specialist in literacy training and, in addition, thoroughly familiar with the area. The average scores of the following three sessions nevertheless show a continuous progression, each session gaining a higher average score than the previous one. This was due mainly to the local instructors, whose self-confidence and mastery of the teaching method improved with each session, thereby confirming the value of on-the-job training in the form of practice.

At the end of the fourth session, the team administered a final test which was identical in every way to the initial test. The results revealed considerable improvement in knowledge and comprehension with 80 per cent of correct answers as compared with 30 per cent in the initial test. The team concluded that the methods and teaching material they had devised had greatly facilitated the process of putting across the content of the educational programme. Even more remarkable was the change in the learners' preferences concerning the method used. Almost unanimously, they emphasized their preference for the "problem-solving" approach, dealing with their own problems. One conclusion in particular reached by the team as a result of the experiment was that the instructors – professional teachers and farmers alike – had shown astonishing aptitude in applying the new methods. Following this operational seminar, the Indonesian authorities decided, as a first stage, to introduce the new methods into 60 literacy centres in Bandung province.

In Thailand, one of the teams adopted a similar procedure for evaluation. This team also opted for the same framework for the experiment – "before and after" tests, check-lists – but with slight differences. The students at the literacy centre, which had been opened two months before the operational seminar was held, had not reached the necessary level for a « paper and pencil » type of test. The team decided that the two tests would be given orally. These tests, which were absolutely identical, contained ten questions relating to the students' knowledge of the problems studied at each session. Instead of giving an initial test before the first session and a final test after the last session, as in Indonesia, the team preferred to give tests before and after each session. By comparing the average results obtained in each of these tests, the team could establish whether the students had acquired any new knowledge. For the first session, dealing with the use of fertilizers,

the average score on the "before" test was 7.7 out of 10 whereas the average score on the "after" test was 9.4. There was no doubt that there had been a significant improvement. For the second session, on the other hand, the team noted that the subjects had gained no new knowledge whatsoever and concluded from this that they had badly underestimated their previous knowledge of the subject in question, pest control. The team reached a similar conclusion during its free (non-directive) activities with a group of farmers : the farmers knew more about the subject than the team had bargained for. This is one of the common pitfalls of adult education programmes. It is not enough to detect the existence of a problem situation; it is also necessary, before providing new knowledge, to determine what those concerned already know about the problem in question, in accordance with the golden rule of education that one should proceed from the known to the unknown.

One of the teams in the Haiti operational seminar decided to use exactly the same evaluation procedures as those used in Thailand but went further in making use of the data obtained by the before and after tests. The team's analysis of the answers enabled them to identify objectively concepts which had been poorly understood by the literacy centre students or badly explained by the instructor. This analysis also showed that it is not easy to root out certain popular beliefs.

Evaluation: working out correlations (Thailand, 1973)

AN OPERATIONAL SEMINAR ON POST-LITERACY WORK

Almost all the operational seminars discussed in the foregoing pages, in point of fact, take the form of demonstration exercises, in which the participants, acting as research workers, rediscover for themselves an educational and training process that is linked with a particular development programme. The level of the educational activity varies, according to the circumstances, from pre-literacy to post-literacy. The object of these seminars is to work out an approach aimed at creating a literate community. No definition was given, in any of the seminars mentioned, of what constitutes a literate community. Is it a community in which all its members are able to read, write and do written arithmetic ? Mastery of these basic skills is certainly a necessary criterion, but is it enough ? It was to find an answer to this question that, in March-April 1974, Unesco, with the help of the Government of the Philippines, organized, in the Batangas province, an operational seminar one of the basic aims of which was to determine, in operational terms, what a literate community should be and what form of educational action is required to create such a community. The Philippines, with a literacy rate of over 81 per cent, was an ideal country for this exercise, which was not an exercise in rediscovering facts that are already known but one of research in a field that remains largely unexplored.

Post-literacy work is certainly not altogether unknown country. An investigation carried out by Unesco at the beginning of 1971 showed that many Member States have undertaken post-literacy activities. These activities usually have a two-fold aim : firstly, to maintain and develop the skills of reading, writing and written arithmetic and the various basic subjects learnt at school or in the literacy centres and, secondly, to add to these subjects and extend them so that the opportunities provided by education can be fully exploited. The replies obtained during the 1971 investigation show that post-literacy activities in many countries take the form of publishing and distributing books, pamphlets and other texts for the benefit of the newly literate. Several countries mentioned the publication of periodicals or newspapers written in simple, carefully chosen terms. Newly literate adults in a few countries have the opportunity to enrol for special courses which offer them a "second chance schooling", an opportunity to receive the education they missed out on when young.

On the subject of activities designed to maintain and develop the basic skills (reading, writing and written arithmetic), it might be mentioned that the existing material concerns only the ability to read. There is practically no systematically designed material giving practice in the ability to write or to perform written arithmetic. This is a serious gap. Studies of adults' abilities made during various operational seminars have shown that it is precisely the skills of writing and arithmetic which tend to regress most rapidly. The results of tests administered in the test villages of Calatagan, in the Philippines, only served to confirm these observations.

Post-literacy activities, as described by the Member States in the 1971 survey, are concerned with an individual's knowledge and skills, the aptitudes and information which he has acquired. Experience has shown that there can be a marked discrepancy between what a person knows and what he actually does (or actually believes). He does not always act in accordance with his knowledge. Knowledge becomes effectively only when it is translated into action. The members of some societies, although literate, have, from the psychological point of view, remained illiterate. It is certainly true that it is important to maintain and develop the basic skills, but even more important is the literate person's behaviour. Does he act like someone familiar with reading, writing and arithmetic ?

Some documents, when referring to the notion of a literate community, hasten to add that this concept has not yet been clearly defined. As a result of the operational seminar which took place in the Philippines, the following definition can be put forward : a literate community is a community whose members have adopted a literate pattern of behaviour. But what is literate behaviour ? For the purpose of this operational seminar, the participants formulated the following definition as a working hypothesis : literate behaviour is behaviour characterized by the following features :

1. Seeking of information

The individual is motivated to look to printed documentation (newspapers, books, pamphlets, news-sheets, etc.) for the answers to questions that interest him; this conduct presupposes that the reading habit is practised.

2. Use of information

The utilization of information occurs when an individual makes personal use of information relevant to his situation which he has obtained from printed documentation (for example, information concerning agriculture, health, etc.).

3. Dissemination of information

This is a matter of communicating information, normally by written means, i.e., by an exchange of correspondence; information can also be communicated orally, as when news read in a newspaper, news-sheet or pamphlet is discussed with relatives or friends.

4. Recording of information keeping

The recording of information means setting down in writing items such as household expenses, operating costs and accounts.

During the seminar, each of these types of conduct was checked at village level. From the data obtained it was possible to gauge the extent to which the individuals in the survey sample showed "literate behaviour" according to the criteria which had been laid down. Analysis and interpretation of these data will provide the information needed in order to devise post-literacy activities to bridge the gaps revealed by the Unesco survey.

Analysis of data (Philippines, 1974)

Those taking part in the seminar were able to set up and try out 12 separate post-literacy activities in the three test villages. The evaluation exercise enabled each of the teams to measure, by means of before and after tests, the sum of new knowledge the adults had acquired. They also used a check-list to measure certain factors affecting the learning process : the adults' attitudes (interest, motivation, reactions, degree of involvement or participation as appropriate,etc.) towards the post-literacy activity; educational methods and their suitability and efficacy; visual aids and the understanding, usefulness and suitability of these aids. The teams noted that a combination of several activities in one session unquestionably reinforced the learning process. The methods which proved to be the most effective were those containing an element of visual illustration such as "sequential posters", copiously illustrated narratives and comic strips. The explanation for this, although it appears paradoxical at first sight, was that the people in question had a relatively high level of education.

As a matter of fact – and this had been confirmed by the visual perception test – there seemed to be a definite correlation between the individual's real educational level and his comprehension of the graphic conventions of pictorial representation : the higher the level, the better, the individual understands these conventions. The inhabitants of the test villages particularly appreciated the visual element because they understood it and had no difficulty in decoding it.

Conclusions and future prospects

More than fifty operational seminars, both national and regional, have been organized since 1970 under the aegis of Unesco in Africa, Latin America, Asia and the Arab States.

It is estimated that more than 3,000 literacy or adult-education specialists and practicians have participated in operational seminars, discovering for themselves, by first-hand contact with the reality of the environment, the special requirements of a form of education and training that is linked with development and is appropriate to the needs and aspirations of a given population.

There is plenty of documentary material in existence on the operational seminars, in the form of their final reports – more than 70 weighty volumes of them. This enormous mass of information is unfortunately not readily accessible to research workers and specialists. Written in the thick of the action and reproduced in the field, often under difficult physical conditions, a final report is normally produced in only a limited number of copies, 100 to 200 depending on the number of participants.

This study does not claim to reflect, much less to summarize, the considerable sum of experience contained in these reports. The most it can do is to describe, by means of selected examples, how, within the space of a few days, the participants in an operational seminar use their first-hand knowledge of principles and procedures to acquire worth-while experience of the methods to be used in development-linked literacy work. Although all the operational seminars referred to in this document followed more or less the same sequence of activities, a rich variety can be seen in the way in which the educational and training programmes were developped and shaped, thus clearly demonstrating the flexibility and adaptability of this practical application of context-related education.

This study has no intention of setting standards or holding up examples. It neither suggests models nor formulates rules. Its aim is rather to provide a sort of synthesis of the different ways in which the teams participating in the operational seminars tackled the successive phases of the educational process.

The operational seminar, which was at first intended, within the framework of the Experimental World Literacy Programme (EWLP), to be a means of explaining a model of literacy training linked with development and also a method of training and refresher training, has evolved, just as the concept of functional literacy itself has evolved. The more recent operational seminars seem to concentrate increasingly on applied research and normative experimentation. Much remains to be said on the subject of literacy and on the complex phenomenon of illiteracy. There are still many grey areas. The operational seminar is coming to be seen more and more as a particularly useful means of throwing light on possible alternatives to literacy and post-literacy operations as hitherto defined and practised.

There is no doubt that the operational seminar formula, as an original and tested method of training, can be applied to other aspects of education, especially the initial and in-service training of teaching staff, curriculum and syllabous reform, preparation of teaching material, development of learning methods etc. The formula can also be applied to the study of various problems such as the effect of adult illiteracy on rural education or the rôle of the village school in creating a literate community by means of non-formal activities.

Operational seminar methods have already been successfully applied to higher education and other educational fields. In 1974, the Faculty of Medicine of the Colombian National University organized an operational seminar as part of a course on public health given by the Department of Preventive Medicine. The Asian Centre of Educational Innovation for Development (ACEID), which is an integral part of the Unesco Regional Office for Education in Asia (Bangkok), also organized an operational seminar in 1974 on educational innovation. This seminar enabled the local specialists to draw up a set of teaching materials relating to educational technology, to prepare educational material on the management of educational innovation and to draw up suitable school curricula.

In conclusion, it can be said that the operational seminar has its place within the context of the renewal of education. It meets the requirements of those

educators who are anxious to free education from certain preconceived ideas, or from rigid or outmoded conceptions, and to introduce into it a greater degree of realism corresponding to the diversity of existing cultural, social and economic situations. It enables educators, by their involvement in a creative movement, to contribute to the task of defining the objectives, and remodelling the content, of a type of education and training measuring up to the constantly evolving aspirations and needs of a rapidly changing world – a type of education and training whose main objective must be man's adaptation to change and his control over it.

Appendix I

Some practical hints on organizing an operational seminar

1. Organizing committee

Experience has proved that it is advisable to set up an organizing committee responsible for detailed preparation of the technical and material aspects of an operational seminar. Once field work has started, errors or omissions may be identified but cannot be rectified. It is essential that all organizations participating in the operational seminar be represented on the committee, particularly the organizations concerned with the development scheme within which the educational and training activities are taking place.

2. Location of the operational seminar

It is important that the seminar itself and the places where the teams of participants will carry out their practical activities should be located in an area directly affected by the development project within which the literacy work is to take place.

The choice of base of operations should take into account the need for accomodation for the participants and for the various installations required for the smooth functioning of the seminar. It has been found advantageous, in practice, to use the premises of a training centre or teacher training school during holidays.

3. Choice of localities for practical activities

Localities selected for field activities – in practice, villages or rural settlements – should not be more than eight to ten kilometres from base. They should be easily accessible by car. It is desirable that literacy classes should already be operating in the localities selected, since shortage of time makes it difficult to organize new classes during a seminar. Moreover, when classes already exist, this allows the activities started during the seminar to be continued after it has ended, which, for the local population, is very important.

4. Accommodation

It is essential that all the participants be able to live actually on the premises where the seminar has its base and have their meals there.

5. Premises and furniture

Provision must be made for : a spacious room for full sessions of the seminar; a room for each team, for their working meetings; a room for the administrative staff; a room for the secretarial staff; a room for the audio-visual section; a room for the reproduction of documents and reports. A sufficient number of blackboards, tables and chairs must also be provided.

6. Equipment and supplies

The secretarial, audio-visual and document reproduction sections must be provided with the necessary equipment and supplies.

7. Transport

It is essential for each team to have the use of means of transport giving them complete freedom of movement to visit villages when they need to. The type of vehicle depends on the number of participants in a team. A minibus normally meets the need.

8. Staff requirements

a) Administration

The holding of an operational seminar usually raises a large number of administrative problems. It is useful to appoint an administrative officer to deal, on a day-to-day basis, with all the problems that may arise, and he

should be exempt from all responsibility for the technical side of the seminar operations.

b) Secretarial services

One qualified typist is needed per team.

c) Audio-visual section

The ideal arrangement would be for each team to have one graphic designer to prepare visual aids.

d) Document reproduction section

The document reproduction section must have sufficient staff to be able to reproduce each team's various working documents and reports without delay.

9. Preparing of technical documentation

In order to facilitate the participants' work during the initial phase of the operational seminar, it is useful for two information documents to be available beforehand. The first, relating to the development scheme within which the literacy training programme is taking place, should be prepared by someone responsible for the development scheme, who should, if possible, introduce it personnally to the participants at the beginning of the seminar. This document should set out clearly the general objectives of the development scheme, its specific objectives, particularly in relation to the region in which the operational seminar is taking place, programmes of activities calling for the participation of the local population, the resources employed and the structures already existing for the implementation of the scheme and the economic, technical and socio-cultural problems standing in its way. All this information is essential in order develop a development-oriented literacy programme.

The second information document deals with existing educational institutions, especially those connected with adult education and literacy work. This document is intended particularly for the personnel of the development programmes, who are not always familiar with the educational system in operation. This document describes briefly the objectives of adult education, its organization, its staff and its programmes, its teaching methods and techniques, its relationship with development activities and problems encountered during implementation of the programmes.

Appendix II

Specimen programme of activities of an operational seminar on functional literacy training linked with rural development

Monday, day 1.

Morning		*Afternoon*	
Plenary meeting	Opening meeting, introduction of participants, general information on the operational seminar : problems and working methods.	Plenary meeting Team activity	Assignment of participants to three multidisciplinary teams, initial contacts, internal organization of teams, appointment of team leaders and rapporteurs

Tuesday, day 2.

Morning		*Afternoon*	
Plenary meeting	*Situating the literacy training programme in the context of the development scheme which forms the background to the operational seminar.* Presentation of their programmes by representatives of rural development agencies: general objectives, specific objectives, programmes of action, educational activities, problems encountered, in particular human factors with implications for the execution of programmes Discussion	Plenary meeting	Discussion of the problems in question with local representatives of technical agencies

Wednesday, day 3.

Morning		*Afternoon*	
Plenary meeting	*Educational infrastructure* Introductory talk on educational institutions and programmes intended for the adult population Discussion	Plenary meeting	*Study of the milieu* Information meeting on the communities selected for the operational seminar
		Team activity	Initial contacts and informations meeting with local authorities (village headmen, village committee, prominent members of the community, etc.) and representatives of the various village technical units services

Thursday day 4.

Morning		*Afternoon*	
Team activity	Choice of survey methods and materials, selection of target groups	Team activity	Testing of the questionnaire or of any other survey method on the sample group

Friday, day 5.

Morning		*Afternoon*	
Team activity	Revision of materials for the study of the milieu	Team activity	*Study of the milieu :* - brief general study of the milieu - in-depth study of the milieu in terms of the objectives and problems of the development project

Saturday, day 6.

Morning		*Afternoon*	
Team activity	- Sorting, tabulation, analysis and interpretation of data (identification of problems) - Drafting of the general study	Plenary meeting	Presentation of the weekly report of each team Exchange of views

Monday, day 8.

Morning		*Afternoon*	
Team activity	- Discussion of the problems identified - Establishment of an order of urgency and priority in collaboration with technical services		*Building up a picture of the adult* Preparation of tests : - tests of literacy, knowledge and skills - visual perception test

Tuesday, day 9.

Morning		*Afternoon*	
Team activity	Testing	Team activity	- Testing - Sorting, analysis and interpretation of test results - Drafting of conclusions

Wednesday, day 10.

Morning		*Afternoon*	
Team activity	*The education programme* - Defining the objectives of technical and vocational training and education - Defining an educational strategy - Devising the education programme and the sequence of teaching operations	Team activity	*Building up a picture of the instructor* - Observation of literacy classes at work (in the communities selected). - Interviews with instructors

Thursday, day 11.

Morning and afternoon	
Team activity	- Choice of educational methods and materials - Choice of a sequence comprising three or four literacy sessions, including : objectives, content, technical and teaching notes, educational material.

Friday, day 12.

Morning and afternoon			
Team activity	- Drafting of the teaching sequence or unit - Production of teaching material - Briefing session for literacy instructors		

Saturday, day 13.

Morning		*Afternoon*	
Team activity	- Drafting of the teaching sequence or unit (continued) - Production of teaching material (continued) - Briefing session for literacy instructors (continued)	Plenary meeting	- Presentation of weekly report - Discusion of the basic principles adopted for the drafting of the educational strategy

Monday, day 15

Morning		*Afternoon*	
Team activity	- Drafting of the teaching sequence or unit (continued) - Production of teaching material (continued) - Briefing session for literacy workers (continued)	Team activity	*Evaluation* Preparation of evaluation methods : - choice of indicators - preparation of tests - initial test

Tuesday, day 16.

Morning		*Afternoon*	
Team activity	- Analysis of results of the initial test - Briefing session for literacy workers	Team activity	- In the field : demonstration session - In the classroom : group discussion followed by exercises in reading, writing or arithmetic - Evaluation

Wednesday, day 17.

Morning		*Afternoon*	
Team activity	Briefing session for literacy instructors	Team activity	- In the classroom : group discussion followed by exercises in reading, writing and arithmetic - Evaluation

Thursday, day 18.

Morning		*Afternoon*	
Team activity	Briefing session for literacy instructors	Team activity	- In the classroom : group discussion followed by exercises in reading, writing and arithmetic - Evaluation

Friday, day 19.

Morning		*Afternoon*	
Team activity	Drafting of final conclusions	Plenary meeting	Presentation of the final report of each group

Saturday, day 20.

Plenary meeting	- Summing up and conclusions of the operational seminar - Closing meeting

OE 608 355

UNESCO PUBLICATIONS: NATIONAL DISTRIBUTORS

Argentina	Editorial Losada, S.A., Alsina 1131, BUENOS AIRES.
Australia	*Publications*: Educational Supplies Pty. Ltd., Box 33, Post Office, BROOKVALE 2100, N.S.W. *Periodicals*: Dominie Pty. Ltd., Box 33, Post Office, BROOKVALE 2100, N.S.W. *Sub-agent*: United Nations Association of Australia (Victorian Division), 5th Floor, 134–136 Flinders St., MELBOURNE 3000.
Austria	Verlag Georg Fromme & Co., Arbeitergasse 1–7, 1031 WIEN.
Belgium	Jean De Lannoy, 112, rue du Trône, BRUXELLES 5. CCP 708 23.
Bolivia	Los Amigos del Libro: casilla postal 4415, LA PAZ; casilla postal 450, COCHABAMBA; Mon[illegible]o 26, SANTA CRU[illegible] 6 de Octubre esq. Junin, ORURO.
Brazil	Fundação Getúlio Vargas, Serviço de Publicações, caixa postal 21120 Praia de Botafogo 183, [illegible]IO DE JANEIRO G.B.
Bulgaria	Hemus, Kantora Literatura, bd. Rouky 6, SOFIJA.
Burma	Trade Corporation n.° (9), 550–552 Merchant Street, RANGOON.
Cameroon	Le Secrétaire général de la Commission nationale de la République fédérale du Cameroun pour l'Unesco B.P. 1061, YAOUNDÉ.
Canada	Information Canada, OTTAWA (Ont.); Bookshops: 640 Ouest, rue Ste Catherine, MONTRÉAL 111 (Que.); 1683 Barrington St. HALIFAX (N.S.); 393 Portage Ave., WINNIPEG (Manitoba), 171 rue Slater, OTTAWA (Ont.); 221 Yonge St, TORONTO (Ont.); 800 Granville St, VANCOUVER (B.C.).
Chile	Editorial Universitaria, S.A., casilla 10220, SANTIAGO.
Colombia	Librería Buchholz Galería, avenida Jiménez de Quesada 8–40, apartado aéreo 49–56, BOGOTÁ. Distrilibros Ltd., carrera 4ª, n°s 36–119 y 36–125, CARTAGENA; J. Germán Rodríguez N., Calle 17, 6–59, apartado nacional 83, GIRARDOT (Cundinamarca). *For 'The Courier' only*: Editorial Losada Ltda., Calle 18A, n.° 7–37, apartado aéreo 5829, apartado nacional 931, BOGOTÁ. *Sub-depots*: Edificio La Ceiba, Oficina 804, MEDELLÍN; Calle 37, n.° 14–73, Oficina 305, BUCARAMANGA; Edificio Zacour, Oficina 736, CALI.
Congo	Librairie populaire, B.P. 577, BRAZZAVILLE.
Costa Rica	Librería Trejos S.A., apartado 1313, SAN JOSÉ. Teléfonos: 2285 y 3200.
Cuba	Instituto Cubano del Libro, Centro de Importación, Obispo 461, LA HABANA.
Cyprus	'MAM', Archbishop Makarios 3rd Avenue, P.O. Box 1722, NICOSIA.
Czechoslovakia	SNTL, Spalena 51, PRAHA 1 (*Permanent display*); Zahranicni literatura, 11 Soukenicka, PRAHA 1. *For Slovakia only*: Alfa Verlag, Publishers, Hurbanovo nam. 6. 803 31 BRATISLAVA.
Dahomey	Librairie nationale, B.P. 294, PORTO NOVO.
Denmark	Ejnar Munksgaard Ltd., 6 Nørregade, 1165 KØBENHAVN K.
Egypt	Librairie Kasr El Nil 38, rue Kasr El Nil, LE CAIRE. National Centre for Unesco Publications, 1 Tlaat Harb Street, Tahrir Square, CAIRO.
El Salvador	Librería Cultural Salvadoreña, S.A., calle Delgado, n.° 117, SAN SALVADOR.
Ethiopia	National Commission for Unesco, P.O. Box 2996, ADDIS ABABA.
Finland	Akateeminen Kirjakauppa 2 Keskuskatu, HELSINKI.
France	Librairie de l'Unesco, 7 place de Fontenoy, 75700 PARIS. CCP 12598–48.
French West Indies	Librairie 'Au Boul' Mich', 1 Rue Perrinon *and* 66 Avenue du Parquet, 972 FORT-DE-FRANCE (Martinique).
German Dem. Rep.	International bookshops *or* Maison Buchhaus Leipzig, Postfach 140, LEIPZIG.
Fed. Rep. of Germany	Verlag Dokumentation, Pössenbacher Strasse 2, 8000 MÜNCHEN 71 (Prinz Ludwigshöhe). *'The Courier' (German edition only)*: Bahrenfelder Chaussee 160 HAMBURG-BAHRENFELD. CCP 27 66 50. *For scientific maps only*: GEO CENTER, D-7 STUTTGART 80, Postfach 800830.
Ghana	Presbyterian Bookshop Depot Ltd., P.O. Box 195, ACCRA; Ghana Book Suppliers Ltd., P.O. Box 7869, ACCRA; The University Bookshop of Ghana, ACCRA; The University Bookshop of Cape Coast; The University Bookshop of Legon, P.O. Box 1, LEGON.
Greece	Anglo-Hellenic Agency, 5 Koumpari Street, ATHINAI 138.
Hong Kong	Federal Publications Division, Far East Publications Ltd., 5 A Evergreen Industrial Mansion, Wong Chuk Hang Road, ABERDEEN; Swindon Book Co., 13–15 Lock Road, KOWLOON.
Hungary	Akadémiai Könyvesbolt Váci u 22, BUDAPEST V. A.K.V. Könyvtárosok Boltja, Népköztársaság utja 16. BUDAPEST VI.
Iceland	Snaebjörn Jonsson & Co. H. F., Hafnarstracti 9, REYKJAVIK.
India	Orient Longman Ltd.: Nicol Road, Ballard Estate, BOMBAY 1; 17 Chittaranjan Avenue, CALCUTTA 13; 36A Anna Salai, Mount Road, MADRAS 2; B-3/7 Asaf Ali Road, NEW DELHI 1; 80/1 Mahatma Gandhi Road, BANGALORE-560001; 3–5–820 Hyderguda, HYDERABAD-500001. *Sub-depots*: Oxford Book & Stationery Co., 17 Park Street, CALCUTTA 16; *and* Scindia House, NEW DELHI; Publication Section, Ministry of Education and Social Welfare, 72 Theatre Communication Building, Connaught Place, NEW DELHI 1.
Indonesia	P.T. Indira, 37 Jl. Dr. Sam Ratulangie, JAKARTA PUSAT.
Iran	Commission nationale iranienne pour l'Unesco, avenue Iranchahr Chomali n° 300, B.P. 1533, TÉHÉRAN. Kharazmie Publishing and Distribution Co. 220 Daneshgahe Street, Shah Avenue, P.O. Box 14/1486, TÉHÉRAN.
Iraq	McKenzie's Bookshop, Al-Rashid Street, BAGHDAD; University Bookstore, University of Baghdad, P.O. Box 73, BAGHDAD.
Ireland	The Educational Company of Ireland Ltd., Ballymount Road, Walkinstown, DUBLIN 12.
Israel	Emanuel Brown, formerly Blumstein's Bookstores: 35 Allenby Road *and* 48 Nachlat Benjamin Street, TEL AVIV; 9 Shlomzion Hamalka Street, JERUSALEM.
Italy	LICOSA (Libreria Commissionaria Sansoni S.p.A.), via Lamarmora 45, casella postale 552, 50121 FIRENZE.
Jamaica	Sangster's Book States Ltd., P.O. Box 366, 101 Water Lane, KINGSTON.
Japan	Eastern Book Service Inc., C.P.O. Box 1728, TOKYO 100 92.
Kenya	The ESA Ltd., P.O. Box 30167, NAIROBI.
Republic of Korea	Korean National Commission for Unesco, P.O. Box Central 64, SEOUL.
Kuwait	The Kuwait Bookshop Co. Ltd., P.O. Box 2942, KUWAIT.
Lesotho	Mazenod Book Centre, P.O. MAZENOD.
Liberia	Cole & Yancy Bookshops Ltd., P.O. Box 286, MONROVIA.
Libya	Agency for Development of Publication and Distribution, P.O. Box 34–35, TRIPOLI.
Luxembourg	Librairie Paul Bruck, 22 Grande-Rue, LUXEMBOURG.
Madagascar	Commission Nationale de la République Malgache, Ministère de l'Éducation Nationale, TANANARIVE.
Malaysia	Federal Publications Sdn. Bhd., Balai Berita, 31 Jalan Riong, KUALA LUMPUR.
Malta	Sapienza's Library, 26 Kingsway, VALLETTA.
Mauritius	Nalanda Co. Ltd, 30 Bourbon Street, PORT-LOUIS.
Mexico	*Except for periodicals*: CILA (Centro Interamericano de Libros Académicos), Sullivan 31 *bis*, MÉXICO 4, D.F.
Monaco	British Library, 30, boulevard des Moulins, MONTE-CARLO.
Netherlands	N.V. Martinus Nijhoff, Lange Voorhout 9, 's-GRAVENHAGE; Systemen Keesing, Ruysdaelstraat 71–75, AMSTERDAM.
Netherlands Antilles	G. C. T. Van Dorp & Co. (Ned. Ant.) N.V., WILLEMSTAD (Curaçao, N.A.).

[B.8] ED.75/XXIV/20 A

New Caledonia	Reprex S.A.R.L., B.P. 1572, NOUMÉA.
New Zealand	Government Printing Office, Government Bookshops: Rutland Street P.O Box 5344, AUCKLAND; 130 Oxford Terrace, P.O. Box 1721, CHRISTCHURCH; Alma Street, P.O. Box 857, HAMILTON; Princes Street, P.O. Box 1104, DUNEDIN; Mulgrave Street, Private Bag, WELLINGTON.
Niger	Librairie Manclert, B.P. 868, NIAMEY.
Nigeria	The University Bookshop of Ife; The University Bookshop of Ibadan, P.O. Box 286, IBADAN; The University of Nsukka; The University Bookshop of Lagos; The Ahmadu Bello University Bookshop of Zaria.
Norway	*All publications*: Johan Grundt Tanum, Karl Johans gate 41/43, OSLO 1. *'The Courier' only*: A/S Narvesens Litteraturjeneste, Box 6125, OSLO 6.
Pakistan	The West-Pak Publishing Co. Ltd., Unesco Publications House, P.O. Box 374, G.P.O., LAHORE. *Showrooms*: Urdu Bazaar, LAHORE *and* 57-58 Murree Highway, G/6-1, ISLAMABAD. Pakistan Publications Bookshop: Sarwar Road, RAWALPINDI; Mirza Book Agency, 65 Shahrah Quaid-e-azam, P.O. Box 729. LAHORE 3.
Peru	*'The Courier' only*: Editorial Losada Peruana, apartado 472, LIMA. *Other publications*: Distribuidora Inca S.A., Emilio Althaus 470, Lince, casilla 3115, LIMA.
Philippines	The Modern Book Co., 926 Rizal Avenue, P.O. Box 632, MANILA.
Poland	Osrodek Rozpowzechniania Wydawnictw Naukowych PAN, Palac Kultury i Nauki, WARSZAWA.
Portugal	Dias & Andrale Ltda., Libraria Portugal, rua o Carmo 70, LISBOA.
Southern Rhodesia	Textbook Sales (PVT) Ltd., 67 Union Avenue, SALISBURY.
Romania	I.C.E. LIBRI, Calea Victoriei nr. 126, P.O. Box 134-135 BUCURESTI. *Subscriptions to periodicals:* Rompresfilatelia, Calea Victoriei nr. 29, BUCURESTI.
Senegal	La Maison du Livre, 13, avenue Roume, B.P. 20-60, DAKAR; Librairie Clairafrique, B.P. 2005, DAKAR. Librairie 'Le Sénégal', B.P. 1594, DAKAR.
Singapore	Federal Publications (S) Pte Ltd., Times House, River Valley Road, SINGAPORE 9.
Somalia	Modern Book Shop and General, P.O. Box 951, MOGADISCIO.
South Africa	Van Schaik's Bookstore (Pty.) Ltd., Libri Building, Church Street, P.O. Box 7.24, PRETORIA.
Spain	*All publications*: Editiones Iberoamericanas, S.A., calle de Oñate 15, MADRID 20; Distribución de Publicaciones del Consejo Superior de Investigaciones Cientificas, Vitrubio 16, MADRID 6; Librería del Consejo Superior de Investigaciones Científicas, Epigciacas 13, BARCELONA. *For 'The Courier' only*: Ediciones Liber-apartado 17, ONDÁRROA (Vizcaya).
Sri Lanka	Lake House Bookshop, Sir Chittampalam Gardiner Mawata, P.O. Box 244, COLOMBO 2.
Sudan	Al Bashir Bookshop, P.O. Box 1118, KHARTOUM.
Sweden	*All publications*: A/B C.E. Fritzes Kungl. Hovbokhandel, Fredsgatan 2, Box 16356, 103 27 STOCKHOLM 16. *For 'The Courier'*: Svenska FN-Förbundet, Skolgränd 2, Box 150 50, S-104 65 STOCKHOLM.
Switzerland	Europa Verlag, Rämistrasse 5, ZÜRICH; Librairie Payot, 6, rue Grenus, 1211 GENÈVE 11.
Tanzania	Dar es Salaam Bookshop, P.O. Box 9030, DAR ES SALAAM.
Thailand	Nibondh and Co. Ltd., 40-42 Charoen Krung Road, Siyaeg Phaya Sri, P.O. Box 402, BANGKOK; Suksapan Panit, Mansion 9, Rajdamnern Avenue, BANGKOK; Suksit Siam Company, 1715 Rama IV Road, BANGKOK.
Togo	Librairie évangélique, P.B. 378; LOMÉ; Librairie du Bon Pasteur, B.P. 1164, LOMÉ; Librairie moderne, B.P. 777, LOMÉ.
Turkey	Librairie Hachette, 469 Istiklal Caddesi, Beyoglu, ISTANBUL.
Uganda	Uganda Bookshop, P.O. Box 145, KAMPALA.
U.S.S.R.	Mezhdunarodnaja Kniga, MOSKVA, G-200.
United Kingdom	H.M. Stationery Office, P.O. Box 569, LONDON SE1 9NH; Government bookshops: London, Belfast, Birmingham, Bristol, Cardiff, Edinburgh, Manchester.
United States	Unipub, a Xerox Education Company, Box 433, Murray Hill Station, NEW YORK, N.Y. 10016.
Upper Volta	Librairie Attie, B.P. 64, Ouagadougou, Librairie catholique 'Jeunesse d'Afrique', OUAGADOUGOU.
Uruguay	Editorial Losada Uruguaya, S.A.; Librería Losada, Maldonado 1092, MONTEVIDEO.
Venezuela	Librería del Este, avenida Francisco de Miranda 52, Edif. Galipan, apartado 60337, CARACAS.
Yugoslavia	Jugoslovenska Knjiga, Terazije 27, BEOGRAD. Drzavna Zalozba Slovenije Mestni Trg. 26, LJUBLJANA.
Zaire	La Librairie, Institut national d'études politiques, B.P. 2307, KINSHASA; Commission nationale de la République du Zaire pour l'Unesco, Ministère de l'éducation nationale, KINSHASA.